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# TOR

**JOURNAL OF THE SOUTH WEST DOCTORAL TRAINING CENTRE**

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## We are delighted to present the third edition of – TOR: The Open Review for the Social Sciences

Welcome to the third issue of the TOR journal!

TOR is a post graduate, student-led journal aimed at showcasing new and upcoming research in the social and economic sciences. TOR is supported by the South West Doctoral Training Centre, and provides an opportunity for student researchers to gain experience of the publishing process, all within a supportive, yet rigorous, academic environment. All articles have been reviewed by independent peer reviewers and members of the editorial team, giving authors the opportunity to receive constructive feedback and improve their academic writing for a broad audience.

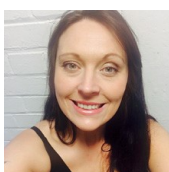
In this issue, we asked you to respond to the theme 'Crisis what crisis?', inspired by a number of political, social and economic changes occurring around the world at the moment, which many feel are unprecedented. We were also delighted to receive papers and blogs on wider topics in the social and economic sciences. As always, the standard of submissions was very high, and the topics explored range from educational issues and political debates to the methodological issues of the research process itself.

In addition to the articles submitted, we are delighted to include a blogs section which focuses on the 'Crisis what crisis?' theme. Finally, we wrap up this issue with our Meet the Researcher piece. This edition of TOR is very fortunate in securing a meet the researcher expose from Professor Michelle Ryan, University of Exeter. In this feature, we hear about Michelle's inspiring experiences as a researcher.

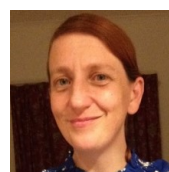
We would like to thank all the authors and peer reviewers for their contributions to this issue, and for being a part of this diverse research community, where rich academic debate can take place. We would sincerely encourage you to look out for our next call for papers, and submit an article for the next issue.

With warmest wishes,

The TOR editorial team:



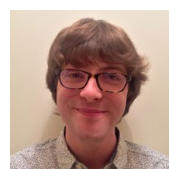
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# Can true objectivity be achieved without reflexivity? An examination of researcher identity and its transformative impact on the research



**Pooneh Roney**

Pooneh Roney is a doctoral researcher at the Graduate School of Education at Bristol. She was previously a secondary mathematics teacher and school leader in the UK and in Dubai. She completed her masters in Mind, Brain and Education in 2010 at Harvard. Her current research focuses on academic perseverance in adolescents in the UK.

## Abstract

As a quantitative researcher, I have a deep commitment to the principles of objectivity. Yet, my recent experience of applying qualitative methods (as part of my research training) has made a profound and lasting impact on how I view objectivity. I am now aware of the paradox, that true objectivity is not possible without subjectively examining the researcher identity, positionality and blind spots.

The primary goal of my qualitative study was to learn and use qualitative research methods. My study was focused on teachers' mindsets about intelligence (Mickkovska, 2010), as this was likely to inform my PhD research. I engaged in autoethnography and a semi-structured interview as my qualitative methods. The practice of autoethnography proved amazingly transformative for me, helping me recognise the incongruence between my declared mindset and my practices as an educator and researcher.

Here, I share shifts in my own thinking and identify ways in which to further support my personal growth as a researcher. I focus on my own transformative learning as a result of this process, instead of summarising the findings of my study or making knowledge claims.

Moving forward, I am determined to keep a reflective journal and more importantly build reflective practices into my research process. This will enable me to acknowledge my multiple identities and observe the implicit commitments that impact my many choices as a researcher. In conclusion, I feel that I have been awakened to the possibility and the responsibility of managing my personal growth as a researcher.

## A Journey Retraced

*"When you are preparing for a journey, you own the journey. Once you've started the journey, the journey owns you"*  
(Shope, 2006, p.165).

This quote encapsulates the essence of my learning through this study. I started the journey with clear aims and I ended up in an entirely unknown, not unpleasant just unexpected, destination. The aim of my study was to gain an understanding of teachers' mindsets about intelligence (Mickkovska, 2010). Using autoethnography and a semi-structured interview, I planned to compare and contrast my own as well as my interviewee's mindset about intelligence (Dweck, 2012). Here, I share shifts in my own thinking and identify ways in which to further support my personal growth as a researcher.

## My Starting Point

I have had a colourful life. I was born and lived in Iran till age 16. Since then, I have lived and worked in 3 other countries as a Maths teacher. My PhD research focuses on why some learners persevere when faced with setbacks, while others give up? Moreover, I am interested in understanding how a learner's *mindset about intelligence* impacts their perseverance (Dweck, 2012). Dweck (2012) suggest that learners can be divided into two broad groups: those with a fixed mindset who believe that intelligence is fixed and espouse to the idea of effortless genius; and those with a growth mindset, who believe that their intelligence is malleable and can be enhanced with effort and training.

The development of mindsets about intelligence is rather complex and dependent on factors both intrinsic and extrinsic to a learner (Dweck, 2012). Specifically, research suggest that "the characteristics of the environment and the socialising practices a child is exposed to, especially the feedback from adults after success or failure situations"

strongly influences a learner's mindset (Mickkowska, 2010, p. 15). Therefore, for this study, I decided to explore teachers' mindsets about their students' ability or intelligence in their subject.

## Choosing Autoethnography as an Approach

The key themes from the research literature were used to develop the questions for my interview with a Secondary Mathematics teacher. Initially, my plan was to conduct an interview to collect my data. However, the more I thought about the interview questions, the more I became aware of my own beliefs and the more I felt compelled to understand how I had arrived at this particular point in my thinking. I therefore decided to retrace my steps and examine the impact of my "personal experiences, interpretations, social locations" (Chase, 2005, p. 666) on my position as a researcher. I also became aware that I had spent very little time examining my own personal history and how it had impacted my choices and decisions up to that point.

In seeking a way to move forward, I reflected on some of the readings that had resonated with me. Richardson (1994) describes writing as a method of inquiry, one that cannot be separated from research. Olson's Vygotskian view of writing as an "artifact, a cultural-historical product of the mind" (Olson, 2002, p.159) further convinced me to use writing as a cognitive tool.

And so I committed to autoethnography for my study as a means of reflecting upon and examining my own position, values, beliefs and cultural background (Trahar, 2009), drawing on Gibbs' reflective cycle (1988).

Autoethnography combines aspects of autobiography and ethnography as a research method, requiring the author to selectively write about past experiences using hindsight (Ellis, Adams, & Bochner, 2010). In my case, autoethnography was both the process and the product of my research, allowing me to shift my focus from the destination to the journey (Trahar, 2009). It enabled me to look "inward, exposing a vulnerable self that is moved by, moved through, refracts and resists cultural interpretations" and "outward on social and cultural aspects of personal experience" (Malthouse, 2011, p. 105).

Furthermore, autoethnography afforded me the luxury of using a narrative style, free of the restrictions of academic writing (a luxury which I have further exercised in this article). This created the opportunity to communicate without the fear of breaking the "rules". A great departure from my default mode of operation as a post-positivist researcher! By writing narratively, I also exercised my responsibility to communicate clearly with other educators and researchers.

Autoethnography does have a number of recurrent limitations. It is often branded as self-indulgent and most notably *limited*, since its conclusions are borne from a personal narrative and thus subjective (Ellis, Adams, & Bochner, 2010). In choosing autoethnography, I felt almost disloyal to my deep faith in "objectivity". Yet, with my

growing awareness of the "myth of neutrality" (Blair, 2004, p. 243), I can see that by exercising reflexivity through use of autoethnography, I had a far better chance of achieving objectivity.

Finally, as my upbringing, schooling and culture impact my own mindset about intelligence both as a learner and an educator (Mickkowska, 2010), it seemed fitting to deeply examine these factors. I felt nervous by the need to put a great deal of trust in the process and curious to examine the emerging insights and epiphanies (Dyson, 2007). The journey back to the unknown in search of meaning awaited me!

## The Research Process

The decision to use autoethnography impacted my method of data collection. I needed to draw parallels between my own experiences and beliefs and that of my interviewee. My research questions up to this point were the result of an *unexamined journey* and this was my chance to examine the path that I had chosen.

As Clandinin and Connelly (2000, p. 40) assert, the process "characteristically begins with the researcher's autobiographically oriented narrative associated with the *research puzzle*". After hours of reading, I felt ready to begin my own narrative. I spent many days recalling and then writing my own story. I was uneasy about trusting my own memories and *my* choice of significant events to record. After all, I was not aware of my own blind spots and could easily have been looking for evidence to support my current thinking, rather than challenging it. Interestingly and even more unexpectedly, I found that the process was extremely illuminating.

The new themes that emerged from my autoethnographic writings impacted the design and the nature of the interview questions. To create a setting for collaboration, I was aware of the need for an established relationship to allow "for the telling and re-telling of stories" (Trahar, 2009, p. 13). Ideally, I would have liked a number of interviews to allow deeper engagement and greater examination of the beliefs, values and stories. However, given my time constraints, I could only conduct a single interview. I chose a close friend with many shared professional experiences as my interviewee, in order to leverage our relationship instead. Using a semi-structured interview allowed me to exercise greater fluidity (DiCicco-Bloom & Crabtree, 2006) to address some of the specific themes that had emerged from the research and my own autoethnographic writings.

I made my interviewee aware of his rights to confidentiality and anonymity (Cohen, Manion, & Morrison, 2011) and the transcription of the interview was member checked. The process was informal, friendly and safe for both of us. I was, nevertheless, aware of the power relationships at play. At two points in the interview, Russ implied that as a researcher I knew and understood the theory best and that somehow my opinions were more

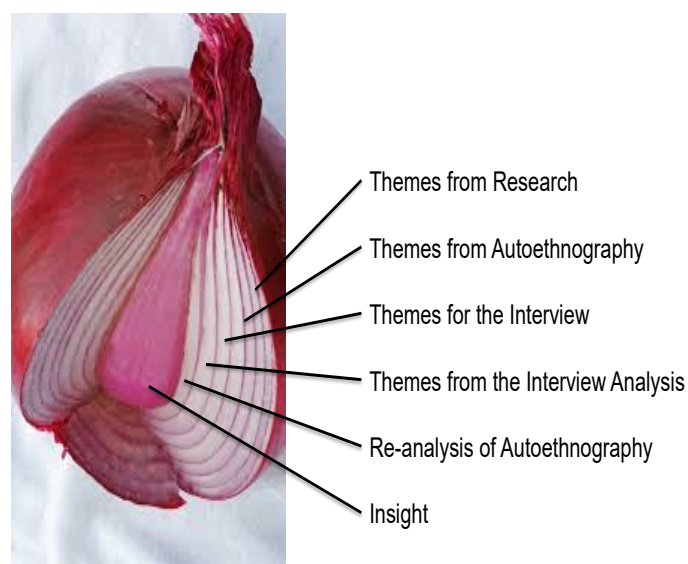
right, despite my reassurance about the validity of his opinions based on his experiences.

What transpired was what I can only describe as *the peeling of the onion*. And in the same way that the peeling of the onion is not without pain, so was the process that ensued. After the thematic analysis of the transcribed interview, I became aware of some of my own underlying assumptions and values. Re-analysing my own autoethnographical writing resulted in the emergence of new themes and ideas.

## Critical Analysis of the Process

I chose thematic analysis as my primary method for “identifying, analysing and reporting patterns (themes) within data” (Braun & Clarke, 2006, p.79). I drew on Braun and Clarke’s (2006) six phases of thematic analysis for a novice researcher. But I found that it was through re-engaging with my own writing and the interview transcript multiple times that insights began to emerge.

### Peeling of the Onion



The peeling of the onion represents the iterative nature of my analysis, as shown above. For greater transparency (and brevity), I will now share one key aspect of my data and analysis:

## And so the story begins: Excerpts from my autoethnography

*Initial Theme: The cultural value of education and attitude to learning*

I was born and brought up in Iran. In my country, education is seen as the worthiest of pursuits. There are some dangers associated with growing up in a society that values education so much. In such a society, success is measured in grades, diplomas and degrees. For school age children, termly reports show grades out of 20 for each subject with a *Modal* – the average of all your subject grades for that term. No comments are included in the report. Just grades.

*Initial Theme: Tensions between adult role models’ beliefs and societal expectations*

My parents’ beliefs about education and learning greatly differed from that of Iranian society at the time I was growing up. Picking me up from school each day, my mum would ask me: “what did you learn today?” She would never ask about my grades. By the time I was 10, I was becoming rather obsessed with getting a Modal of 20 (i.e. getting 20/20 in every subject). So part way through the first term that year, my parents sat me down and told me that if I wanted a new bike, I had to get a Modal less than 20. I had to let at least one subject go!!! I was incensed by this proposal and spent hours arguing how unfair it was. They believed that I was more worried about grades than learning. I argued that as I was learning things so deeply, I could not but help get 20/20 in every subject and that surely I should not be penalised for that.

This was genuinely a big dilemma for me. The truth of the matter was that I did care a little too much about my grades, perhaps more than I cared about learning and understanding. And my parents’ intervention was timely. That year, I was desperate to impress my teacher who always praised me for being the brightest kid in her class. But I also wanted a new bike. At the end of term, I did not get a bike. My parents had definitely succeeded in communicating their beliefs and values to me. My friends wouldn’t believe me! After all, they and their parents would have been overjoyed with a Modal of 20. I did feel cheated out of a bike but also understood that I was the one making that choice.

And I can just start seeing the source of the tension that I was feeling! On the one hand, I was a member of a class, a school and a society that valued academic success and equated it to achieving high grades. On the other hand, I had parents who wanted me to learn for the sake of learning not because I was being graded.

*Initial Theme: Observing tensions in my practice and beliefs as an educator*

On reflection, this is similar to the tension that I have felt throughout my career as a Maths teacher. Am I an effective teacher if I help my students get the grades they need to get into universities or find a job, without developing a deep understanding of mathematics? Or is it better to focus on understanding, even if this will not always result in higher grades and prospects for my students?

You may think, “Well, couldn’t you do both?” and you will be right to some degree. There are many times when it is possible to do both. But equally, when you inherit lower set year 11 students with limited conceptual understanding of many areas of mathematics, then you do need to make that hard choice. In the past, I have often focused my efforts on getting these students the best grade possible at the expense of understanding. I felt that I had a responsibility to give them the access they needed by preparing them solely for their exam.



This is in stark contrast to my declared mindset as an educator. I am openly admitting to myself that in my eyes: you are either good at Maths or you are not! This deterministic belief lies at the core of my actions. This belief has simply been hiding from me in plain sight. I can also see that I am trying to justify my actions rather than simply observe them and find meaning in them.

#### *Interview Theme: Conforming to the pressures of the educational system*

My interviewee, Russ, also expressed his discomfort with “teaching to the test” or “parrot fashion learning” resulting in high grades.

#### *Insight: The educator’s dilemma*

So perhaps this tension is not unique to me and my upbringing, but a more universal tension felt by every educator. To achieve high standards, we do need to measure learning but the moment we choose to measure learning, we are faced with *the educator’s dilemma*. At Harvard, four of my eight professors refused to give grades for their classes and instead only gave students Pass, Fail or Incomplete. And now thinking back, those were the classes that I worked the hardest for. They had found a way to resolve the tension, addressing this dilemma head on. This raised questions about my own integrity as an educator. How much did my beliefs get in the way of serving my students? What were some of my own efforts within the limits of my environment to challenge the educational system I was a part of?

By looking back at my own practice, it has become apparent that I had a different mindset depending on my students’ ability. For those in higher sets, I prioritised understanding, but for those in lower sets I prioritised exam results. I believed that my higher set students could reach deeper understanding (growth mindset). Whilst my lower ability students had to settle for being taught to the exams (fixed mindset) (Dweck, 2012). This is certainly a possibility I had not considered. Viewing my beliefs and values from the retrospective lens of autoethnography allowed me to really examine my actions for clues, and not to trust what I had previously voiced as my beliefs!

## Reflections on the Process

The process of analysis was an iterative and lengthy one. I was greatly surprised by the degree that re-engaging with the data resulted in seeing new things. I strove to be transparent about my own thoughts, reactions and views in my autoethnography. My lack of awareness of my own personal commitments was truly fascinating to me.

## Final Thoughts

Engaging in qualitative research presented me with a number of unexpected challenges and perhaps more wonderfully, transformative shifts in my thinking. I started this process, aiming to examine the role of teachers’ mindsets about intelligence and ended up with the

realisation that the research process had transformed my initial assumptions and research questions. So instead of summarising my findings and making knowledge claims, I have focused here on my own *transformative learning* as a result of this process.

Throughout the process, I felt truly out of my comfort zone as a novice qualitative researcher conducting an interview and engaging in autoethnography. However, undergoing the process of data collection made me aware of the importance of experience in the quality of the data collected. My lack of experience in both methods meant that I needed to be extremely careful about any claims.

The practice of autoethnography proved an amazingly powerful way to achieve transparency and reflexivity for me. As an autoethnographer, I was aware that whilst I was focusing on myself, this was in service of advancing my research (Loughran, 2004). Nevertheless, the practice left me feeling self-indulgent and vulnerable (Ellis et al., 2010). On looking back at the process, I now realise that at the time of writing my story, I was not at all cognisant of my likely audience. Was I writing just for myself? What was the source of my vulnerability?

The greatest shift in my thinking emerged from my deepened understanding of *objectivity*, through re-engaging with the data again and again. What commanded my attention initially differed from what I came to see as important later on, making me acutely aware of *the existence of blind spots* affecting my objectivity.

Prior to this study, as a post-positivist researcher, I held the strong belief that qualitative research was flawed due to its subjectivity. Having engaged in autoethnography, it is apparent to me that true objectivity cannot be achieved without examining the researcher’s role in the process. A researcher’s position and beliefs are inseparable from the research process (Carr, 1995) and without reflexive practice, objectivity is nothing but a mere illusion.

Moving forward, I am determined to keep a reflective journal and more importantly build in reflective practices that allow me to re-engage and analyse my own reflections. This will enable me to acknowledge my multiple identities and observe the implicit commitments that impact my many choices as a researcher.

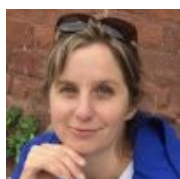
In conclusion, I feel that I have been awakened to the possibility and the responsibility of managing my personal growth as a researcher. I feel extremely privileged to have had this opportunity to examine my own values and beliefs, *early* in my research journey and confident that I now have some of the tools to take the first step. After all, “the unexamined life is not worth living” (Socrates, trans. 2011).

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# How some methodologies of participation fail to address the problem of the political relationship between researcher and researched in the social sciences.



**Aimee Middlemiss**

*I am a mature student currently studying for the MRes Science and Technology Studies at the University of Exeter, for which I am researching the home use of foetal heartbeat monitors.*

*In September I will be starting my PhD in Sociology/Anthropology about contested foetal personhood in second trimester pregnancy loss.*

## Abstract

This discussion uses Foucault's metaphor of the Panopticon to consider some political problems inherent in the social sciences where humans are the source of data. It uses the metaphor as a tool to critique two methodological approaches which claim to challenge hierarchies in the research process, Participant Action Research and co-production, which despite their stated goals are revealed to be limited forms of participation and power sharing in social science research. The article argues that using a Foucauldian understanding of how power is produced through surveillance by means of the Panopticon metaphor can reveal the power relations inherent in different social science research strategies and allow the researcher to make an informed choice of research design.

## Introduction

*"He is seen, but he does not see; he is the object of information, never a subject in communication."*  
(Foucault, 1991, p.200).

In social science research, where human beings are both the researchers producing knowledge and those about whom research knowledge is produced, there exists a tension regarding whether all those human beings share the same ontology, or are fundamentally divided into privileged investigating subject and exploited or alienated object of study by the nature of the research process. Who benefits from the existence of social science research and who does not, who creates authoritative knowledge about society and who does not, who is researched and who is not, are crucial questions in establishing whether social science is an ethical or an exploitative endeavour. This article uses French philosopher Michel Foucault's metaphor of the Panopticon (Foucault, 1991) as a tool to

investigate this problem of the political relationship between researcher and researched in social science.

Foucault based his theory of power in modern society on the widespread use of techniques of discipline and surveillance to produce controlling power relations, and he explained the operation of these relations of power through the idea of the Panopticon. The Panopticon was an 18th century design for an ideal prison by the philosopher Jeremy Bentham which consisted of a ring of prison cells surrounding a central tower from which guards could see all the prisoners at all times, but could not be seen themselves. In the 1970's, Foucault used this idea of the Panopticon to explain how power in modern society is produced through controlling others in processes of observing, recording and then comparing their behaviour to norms which eventually become internalised by the observed people themselves. He referred to the Panopticon structure as a "diagram of the mechanism of power" (Foucault, 1991, p.205), which lays out how the powerful create their power through constant surveillance of others, as if they were in the central tower of the prison. By contrast, those who have less power in our society are constantly observed and controlled from the tower without being able to see for themselves, as if they resided in the outer ring of prison cells. In this article, I will argue that Foucault's metaphor is useful when thinking about social science research designs, because it can reveal where power is located within a research design by considering who is located in which part of a Research Panopticon. Some people (the researchers) are enabled to create knowledge about society by observing as if from the central tower of the Panopticon, and other people (the objects of research) are those in the outer rim whose behaviour is recorded and judged.



## Approaches to the politics of researcher/researched

The existence of political tension between those who do research and those who are researched has been repeatedly recognised in different areas of social science. Feminist approaches in particular aim to illustrate and critique instances of differentiated power in the research process. Approaches have involved shifting the object of research to women and their oppression, with the aim of redressing power inequalities in society by allowing the experiences of the marginalised to be acknowledged (Doucet & Mauthner, 2007). In the field of Science and Technology Studies, the development of feminist epistemologies has addressed relations of observer/observed, for example the strong objectivity in standpoint theory (Harding, 1992), which allows a more complete description of the world when it positions itself as constructing knowledge from the perspective of women and other oppressed groups who have a particular knowledge to impart by the fact of their marginalisation. Such an epistemological approach is central to the production of a research design as the “framework or structure within which the collection and analysis of data takes place” (Bryman, 2016, p.695) in that it seeks to produce better, or more complete, evidence by looking from the perspective of those in the periphery of the Panopticon. By contrast, Donna Haraway’s situated knowledges (Haraway, 1988) reworks the vision metaphor to move beyond a dichotomy between the production of better ‘objective’ evidence about the world and the relativism of extreme social constructivism which cannot take a political or ethical position. She claims that the “conquering gaze from nowhere” (Haraway, 1988, p.581) can be overcome by consideration of and openness about the nature of the one doing the visualising, the observer/researcher. For Haraway, the central tower of the Panopticon is also transparent.

Similarly, and with overlap with feminist methodologies’ concern with power and epistemology, critical and post-colonial approaches to the position of the object of research have been developed in anthropology. Addressing the question of choosing an ethnographic object of research, Laura Nader in the 1970s pointed out:

“Anthropologists might indeed ask themselves whether the entirety of fieldwork does not depend upon a certain power relationship in favour of the anthropologist, and whether indeed such dominant-subordinate relationships might not be affecting the kind of theories that we are weaving.” (Nader, 1972, p.5).

Nader’s concept of anthropology ‘studying down’ and her consequent call on social scientists to ‘study up’ (Nader, 1972) by investigating their own societies and those more powerful than themselves aimed to create improved, more accurate knowledge about society, which could be understood in Bryman’s terms as thereby creating better

evidence, or perhaps in Harding’s terms as a standpoint epistemology. Problematization of the selection of the research object echoes postcolonial approaches to anthropology, where the complicity of research in wider power structures of inequality has been critiqued since the 1970s (Asad, 1973). Thinkers from other fields have also demonstrated how discourse inherited from academia and wider culture structures social difference between those creating knowledge and those about whom knowledge is created, such as Edward Said’s description of the Orientalist division into the Western (French, British, American) ‘us’ and the Oriental ‘other’ (Said, 1995). Therefore, there is a power relationship implicit in research design in the very choosing of which people the researcher is interested in investigating, and subsequently in the control of the evidence of what is said about them (in anthropology, writing the ethnography) where:

“...the authority to represent cultural realities is unequally shared and at times contested.” (Clifford, 1986, p.6).

This brief overview illustrates how research design involving the selection of the object of study and the reporting of results from the field has repeatedly considered questions of power in relation to the researcher and researched in social science.

## Participatory Action Research and the politics of researcher/researched

Recent research strategies and designs involving participation have tried to bridge potential power differences between researcher and researched using methodological strategies. One such approach involves Participatory Action Research (PAR), which aims to challenge hierarchical relationships in research between the participants and researchers and between the research results and any action for change which derives from the research process. Researchers following this model describe themselves as having:

“...sought to replace an ‘extractive’, imperial model of social research with one in which the benefits of research accrue more directly to the communities involved.” (Kindon, Pain, & Kesby, 2007a, p.1).

A research project involving PAR would be a cyclical, reflective and iterative process in which other people, including the ‘researched’, would be involved in the planning and process of inquiry (Wadsworth, 1998). It would also be explicitly linked to action.

Participatory action research is aware of its inevitable intervention in the social situations within which it operates and seeks to turn these to consciously-applied effect. Most participatory action research sets out to explicitly study something in order to change and improve it (Wadsworth, 1998).

Kindon and her co-authors refer to the actual research questions in PAR being prompted by a perceived need for

change, meaning that the range of possible questions and the knowledge produced in this research is structured and limited by the epistemological approach – questions could not be asked in the PAR process which were not likely to produce action and change (Kindon, Pain, & Kesby, 2007a). Supporters of PAR claim that this is also true of the traditional model of academia-directed research, which fails to recognise plurality of knowledges, and that their approach “represents a counter-hegemonic approach to knowledge production” (Kindon et al., 2007b, p.9). The involvement of research participants in the research as well as the researcher is based on an ontological approach to human beings as “dynamic agents capable of reflexivity and self-change” (Kindon et al., 2007b, p.13), positioning the researched human as capable of being an active contributor to social research and creating a research structure which allows that to happen.

The methodological theory in PAR is a possible way of undermining the power-producing structure of the observer and the observed as described by Foucault, by bringing people from the observed peripheral ring into the central tower of the Panopticon from where observation takes place. However, it is questionable whether this is a general solution in social science research. Firstly, as mentioned above, the questions which can be asked in the approach are limited by their link to the necessity of action and the perceived needs of a social group rather than driven by theoretical or academic knowledge generation. This means that if research in general was approached through this framework, there would be a more narrow range of research question generation. In addition, any research questions themselves have to be answerable through involvement of the participants in the research process. It is possible to imagine many questions in social science in which this level of reactivity is not desirable or practical, for example where potential participants do not wish to be so involved in the process, or do not have time to participate to such an extent, or where the research is a by-product of another goal which is more important to the participants. In addition, it is highly likely that the level of participation allowed to the researched will still be controlled by the researcher, who is likely to be controlling funding, controlling which individuals will have access to the project, and controlling the outcomes of the process, and who will probably hold a position of some authority within the project simply due to their training and academic role (Kesby, Kindon, & Pain, 2007a). Therefore it is debatable whether the researched people from the Panopticon’s periphery have actually been given true access to the Panopticon’s central tower, or whether in fact this is a form of lip service to participation which actually masks the production of power by surveillance.

Furthermore, the whole process of PAR can become institutionalised – for example, in Kindon’s account there are descriptions of what type of person is a Participatory Action Researcher: “mavericks / heretics”, ‘sociable and

collaborative” (Kindon et al., 2007b, p.14). We have moved from PAR as a methodological technique to PAR as a technology of the self (Foucault, 1988) where a certain type of personal trait is cultivated in order to do the work, which in itself carries political implications.

## Co-production as a solution to power imbalances in research

An alternative approach to participation in the research process involves importing the concept of co-production from the field of Science and Technology Studies (STS), in which ‘lay people’ bridge “the great divide between specialists and non-specialists” (Callon, 1999, p.82). Callon described three models of relationship between the lay person and the specialist in the context of science and technology. The Public Education Model is where the specialist knows best, lay knowledge must be refuted, and there is total exclusion of the undifferentiated public. The Public Debate Model is where certain knowledge can be added to specialist knowledge in order to improve it through the negotiated inclusion of specific concrete knowledge from selected lay people, such as the shepherding knowledge of Cumbrian farmers in relation to environmental hazards from Chernobyl fallout (Wynne, 1992). But as Callon notes:

“This form of legitimacy has its own specific limits: it comes up against the thorny question of representativeness. Who should be included in the debate? Who represents whom?” (Callon, 1999, p.89).

Callon claims that the deficiencies of the Public Debate Model are resolved by his third model, of Co-production of Knowledge, where lay people are enrolled in the network of knowledge production by forming a ‘concerned group’, for example of patients with rare genetic diseases, where active involvement in research such as through participation in research trials, and constant interaction between lay people and experts means:

“The patients ensure that they are in a position to control the knowledge concerning their disease, and thereby gain access to the construction of their own identity.” (Callon, 1999, p.91).

Callon draws his concept of co-production from this very specific example, and claims it can result in knowledge which is produced together by experts and lay people. The model is developed in the context of scientific research and involves the experts and lay people together in Foucault’s Panopticon tower, looking at some ‘other’ scientific object in the peripheral ring, such as a genetic disease. The term co-production was broadened in Science and Technology Studies (STS) by Sheila Jasanoff to come to mean how science and society come to produce one another, rather than one determining the other (Jasanoff, 2004), but has also increasingly been taken up as a form of research design in its own right. For example, ESRC funded research

on flooding risk in Crediton in Devon has been carried out as 'co-production' with local and governmental groups, individuals and geography academics from the University of Exeter (Understanding and promoting resilience to flooding in Crediton, 2016). A report by the ESRC and a group of universities in the UK produced claims earlier this year about the potential of such co-produced research to democratize the research process because it:

"...assumes mutual respect, no hierarchy of knowledge forms, fluid and permeable disciplinary and professional boundaries, and a normative concern with action, not simply a focus on systematic analysis." (Campbell & Vanderhoven, 2016, p.12).

However, it is unclear how co-produced research overcomes the difficulties associated with PAR research in relation to genuine participation and therefore reframing of the relationship between researcher and researched in the social science context. The same issues of control over funding and access apply, the same issues of who determines the general research question and who writes the final product. In addition, as with PAR, the institutionalisation of this type of research design as one approved by funding bodies such as the ESRC or by university impact departments such as at the University of Exeter (Research toolkit: Engaged research, 2016), means that the political relationships embedded in these establishments are inevitably transferred into the content of the research – in co-production's own terms, society (academia and lay people) and science (research results) will coproduce one another and reproduce their power relations. Similar critiques of participatory involvement have been advanced in other fields. In the context of development, Cooke and Kothari describe a 'participatory orthodoxy' (Cooke & Kothari, 2001) in which participation elements in development projects became instances of limited reflexivity, manipulation or even harm to participants, but were required by major development funders as evidence of supposed participation. In healthcare, critics of this enforced or institutional form of participation describe the necessity of including PPI (Public Patient Involvement) in healthcare participatory practices including healthcare research as being 'the contemporary shibboleth' (Gibson, Britten, & Lynch, 2012) and in the context of the UK:

"One government response in a late capitalist system to a complex array of major legitimisation crises." (Gibson et al., 2012, p.4).

There is therefore a serious risk of institutionalising participation in a way which does not actually empower the researched but instead principally meets institutional requirements to be seen to be inclusive and participatory, whilst still firmly keeping the researchers in the Panopticon's central controlling tower. As the anthropologist Talal Asad claimed of anthropology in a colonial context:

"It is because the powerful who support research expect the kind of understanding which will ultimately confirm them in their world that anthropology has not very easily turned to the production of radically subversive forms of understanding." (Asad, 1973, p.16).

## Conclusion

If routinely inviting the researched peripheral occupants of the Panopticon into the central tower at a time and in a manner of the researcher and their institution's choosing does not always signify full participatory research, nor allow the production of radical new knowledge, what other possibilities remain for challenging the power relationships in the structure of social science research? Perhaps something more than a participatory 'blurring of boundaries' (Campbell & Vanderhoven, 2016) within the research Panopticon is required. The nature of the research question being asked might point to different solutions in different circumstances. In situations where the object of knowledge is a scientific, non-human object, as in some Science and Technology Studies, the participatory approaches may be a methodological solution, for example with the Crediton flood research. However, where the object of knowledge is humans, the more conscious breaking down or revealing of political positions between observer/researcher and observed/researched put forward by feminist approaches may be more appropriate than a simple 'blurring'. Again, the Panopticon is a useful metaphor. Laura Nader's call to 'study up', which claims that changing the object of research from the less powerful to the more powerful could enable citizens to use the resulting ethnographic detail to exercise their own agency in the face of their society's bureaucracy (Nader, 1972), moves the people in the central tower into the observed periphery, instead of moving the peripheral people into the central tower. Or, in recognition of the agency and reflexivity of humans themselves as research 'objects', it may also be possible to borrow another concept from STS, that of 'agency through objectification' (Thompson, 2007). In the context of infertility clinics, Thompson describes how women allow themselves to be objectified in the medical procedures of assisted reproductive technology when there is a possibility of meeting their own goal of becoming pregnant. Through a process of alignment of their goals as human beings with those of the medical practitioners, a consensual objectification allows the women to exert their own agency and power.

When considered using Foucault's Panopticon diagram of power, critical approaches to social science research from feminism and post-colonial practices seem to go beyond methodological solutions such as Participant Action Research or co-production in establishing a less hierarchical power relationship. Methodological solutions do not sufficiently disrupt the relationship of observer/observed revealed by the Panopticon because control over



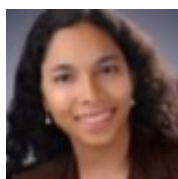
the process is still held by the researcher or institutions observing from the central tower. By contrast, applying the metaphor of Foucault's Panopticon shows how Haraway's situated knowledge can make the researcher's central tower transparent, how Thompson's agency through objectification can allow those in the peripheral cells to consent to objectification in their own interests, or how Harding's standpoint epistemology and Nader's studying up can reverse the gaze, allowing those at the less powerful periphery to observe, record and normalise what those in power are doing in the Panopticon's central tower. Applying the same analysis of power to different research design models, through the metaphor of Foucault's Panopticon and its surveillance techniques, can allow the researcher to perceive the power relations produced by each model, and then select the most appropriate, and least exploitative, for the purposes of their social science research.

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# Using social equity theory to explain ethnic achievement gaps in developing countries: Evidence from Colombia



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*I am a second year PhD student in the Advanced Quantitative Methods Pathway of the South West Doctoral Training Centre/ Partnership at the University of Bristol. My research is both substantive and methodological; I try to understand ethnic and socioeconomic achievement gaps in Colombia, and the statistical techniques that are used to measure and model them.*

## Abstract

The development of literature on achievement gaps has been mostly atheoretical, which has led to a collection of regularities that are difficult to interrelate. In an attempt to provide a more holistic explanation, McKown (2013) proposes Social Equity Theory as a framework for achievement gaps. In this document, I contrast one of the propositions of this theory in the context of a developing country: Colombia. Regression analysis does not provide evidence of complete support for this theory. I propose interactions between the social processes that originate achievement gaps could be an explanation for the results that contradict the theory.

Keywords: Achievement gaps, Social Equity Theory, Colombia.

## Introduction

The Coleman Report, a study about educational equality funded by the US Department of Education, was published in 1966 (Coleman et al., 1966). According to this study, US black students score around one standard deviation lower than white students at all educational levels, and schools are less important than the students' socio-economic background when explaining academic achievement.

Since then, a considerable volume of empirical research has tried to understand, replicate, and question Coleman et al.'s (1966) results, both in the US and around the world (Hanushek & Rivkin, 2006; Marteleto & Andrade, 2014; Myers, Kim, & Mandala, 2004; Saw, 2015; Strand, 2014; Wenglinsky, 2004). However, these studies have been mainly descriptive and exploratory, which has led to a lack of a holistic understanding of achievement gaps. Instead, there is more a collection of regularities about the factors that are related to the achievement gap. Hence, the

theoretical understanding of how these factors collectively interact is still limited.

In an attempt to address this deficiency, McKown (2013) proposes that Social Equity Theory (SET) can be used to understand achievement gaps in the US. With this aim, he proposes a set of standards of empirical evidence that are required to test the theory. In his article, McKown (2013) shows how the existent literature in the US provides partial evidence to support a social equity explanation of ethnic achievement gaps. In many developing countries, the literature is still in an early stage of development (Buchmann & Hannum, 2001), making it difficult to test this theory on the base of existing empirical research.

This paper provides an initial approach to using social equity theory as an explanation for ethnic achievement gaps in a developing country: Colombia. The aim is to examine the parts of this theory that can be tested using the available data. However, the aim is not to test if the theory as a whole can explain achievement gaps in this particular context.

The next section summarises the main points of McKown's proposal of using SET to understand ethnic achievement gaps. Later sections give an overview of the relevant Colombian context, describe the data and methods, and summarise the results. The last section presents the discussion and conclusion.

## Social Equity Theory for Achievement Gaps

As outlined by McKown (2013), Social Equity Theory (SET) attributes the ethnic achievement gap to both, direct influences (all the social processes that are related to achievement, such as parenting and instructional practices, and students' background characteristics) and negative expectations for the performance of specific ethnic groups (called signal influences). He proposes that the influence of negative stereotypes depends on the student's ability to detect such stereotypes. Simultaneously, this ability and the

effect of direct influences change over time and by context (home, school, peer-group and neighbourhood) (McKown, 2013).

Then, McKown (2013) proposes three types of evidence that are required to test this theory:

1. For the direct influences, the theory requires that: Students who are exposed to similar influences have similar performance, independently of their ethnicity. Direct influences have the same effect on all students.
2. For the negative stereotypes, the theory predicts that: Only minority students are affected by these stereotypes. The stronger the stereotypes, the larger the effect on minority student's performance.
3. For SET as a whole, 1. and 2. occur at the time and vary according to the contexts and ages.

As McKown (2013) argues, literature in the US has provided enough evidence to support 1. and 2. However, there is no empirical examination of the theory as a whole. This is mainly because it requires simultaneously examining many different contexts over different educational and life stages, and there is not enough data for this.

In this paper, I aim to evaluate if empirical evidence for a developing country supports the first of these propositions in the family context; in particular, if there is an ethnic achievement gap for students with the same family background characteristics, and if these characteristics affect students of different ethnicities in the same way.

## Colombia: An Overview

Colombia is an upper-middle-income country in the north part of South America. It is a multi-ethnic country with a population of 48,228,704 inhabitants in 2015 (The World Bank, 2016). Of that population, the 10.6% are Afro-Colombians, 3.4% are Indigenous, and 0.01% are Romani population (DANE, 2005). Most of the population are Mestizo, which is a mixture of these minority groups, colonisers from Europe, and 19<sup>th</sup> century migrants from the Middle-East (Ministry of Education, 2010).

Around 79% of Colombian 11 to 17 years-olds are enrolled in secondary education (The World Bank, 2016). At the end of 11<sup>th</sup> grade, the last year of schooling, students from all schools are required to take SABER 11 examinations, a competency-based test that is administered by the National Institute for Educational Assessment, called ICFES. This exam is used as an entry requirement for many tertiary institutions and as an instrument for educational assessment of both, upper secondary and tertiary education. SABER 11 aims to assess competencies in maths, critical reading, natural sciences, English, social sciences and citizenship. The scope of the test is aligned with the competency standards published by

the Ministry of National Education (Congress of Colombia, 2009; Icfes, 2015).

The next section describes how the ethnic groups differ in terms of their achievement and background characteristics, and presents the methods used to evaluate if direct influences are a possible explanation for achievement gaps in Colombia.

## Methods

In this preliminary approach, I aim to verify if the first of McKown's propositions holds for 11<sup>th</sup> grade (16-17 years-old) Colombian students in the home context using SABER 11 language test scores. This proposition states that:

Students with similar family background have a similar performance, irrespective of their ethnicity.

The relationship between family background and achievement is the same for all ethnicities.

I start by analysing how students of different ethnicities differ in terms of achievement and background characteristics using a descriptive analysis. This shows differences in performance of students with one family characteristic in common, but it is not possible to guarantee that all other family characteristics are the same for these students using this approach. For example, the descriptive analysis allows checking if students in families with the same income have a similar achievement, but not guaranteeing that parents' occupation or educational attainment is the same.

I then use regression analysis to check if students with exactly the same set of characteristics perform similarly, irrespective of their ethnic background. The first regression model only includes ethnicity as an explanatory variable for language achievement. This model, called model (1), represents the average achievement gaps between mestizo and minority students.

Model (2) incorporates family background characteristics. If ethnicity is related to the family background, and the latter is correlated with achievement, then the achievement gaps that are estimated in the first model should change.

For example, if minority students come from more disadvantaged families than mestizo students, the ethnic achievement gap should narrow.

The regression model (3) includes interaction terms for family background and ethnicity. This model allows testing if family background affects achievement in the same way for students of all ethnicities. If this is true, the effect of these interactions should be statistically equal to zero.

## Data

To conduct the proposed analysis, I used SABER 11 dataset for 455,473 students who took the exam in 2013. This dataset is free and available to the public through the

<sup>1</sup>There are also national examinations for 3<sup>rd</sup>, 5<sup>th</sup> and 9<sup>th</sup> grade students, but no information about pupils' ethnicity is collected for these tests. Pupils are not followed over time either.

ICFES' website (ICFES, 2010). In the sample, 87% of students are mestizo, 4.9% are Afro-Colombians, 2.6% are Indigenous, and 5.5% are part of any other minority group. The language test score has been standardised to have mean zero and variance one.

Table 1 provides an outline of the variables used in the analysis. These variables (parents' occupation and educational attainment, family income and an indicator of living standards.) are widely understood to represent the students' socioeconomic status (SES), which is also considered the most important predictor of achievement besides prior attainment, but the latter is not available in our dataset (Bornstein, Hahn, Suwalsky, & Haynes, 2003; Braveman, Cubbin, Marchi, Egerter, & Chavez, 2001; Ensminger & Fothergill, 2003; Hansen & Munck, 2012; Jeynes, 2002; Rutkowski & Rutkowski, 2013; Sirin, 2005; White, 1982). Table 1 also summarises the distribution of the variables for the whole sample.

Results in Table 1 indicate that most parents' educational attainment is below secondary education (79.1% of students' fathers and 77.4% of students' mothers), most mothers (54% of the students' mothers) stay at home, while fathers are most likely to be self-employed workers. Only 13.6% of students' families have a monthly income of around £606 or more, and 92.8% of students live in families that benefit from subsidies of public utilities. In the next section, I check whether students from different ethnicities come from different family backgrounds and how they differ in terms of academic achievement.

Table 1

*Proportion of students according to their family characteristics (%)*

Parents' education	Father's	Mother's
None	4.4	1.9
Incomplete primary	20	16.6
Complete primary	15.5	14.8
Incomplete secondary	15.1	17
Complete secondary	24.2	27
Incomplete vocational	1.6	2
Complete vocational	5.5	6.9
Incomplete professional	1.6	1.7
Complete professional	9.5	9.5
Postgraduate	2.6	2.4
Parents' occupation	Father's	Mother's
Entrepreneur	2.1	0.9
Small Entrepreneur	2.7	2.1
General Manager	2.1	1.1
Manager	1.3	1.4

Continued on next column

Table 1-Continued

Parents' occupation	Father's	Mother's
Technician	7.9	6.4
Secretary	2.2	4.8
Labourer	22.3	7
Self-employed professional	3.3	2.7
Self-employed worker	37	10.7
Stay-at-home Parent	1	54.3
Pensioner	3.3	0.8
Others	14.9	7.9
Family income (£/month in 2013)		
[0,202)		29.9
[202,404)		41.6
[404,606)		15
[606,1010)		7.5
[1010,1414)		2.7
[1414,2020)		1.5
[2020 or more		1.9
Subsidised utilities?		
No		7.2
Yes		92.8

Source: Own calculations from SABER 11 (2013)

## Differences Among Ethnic Groups

According to the SABER 11 database, all groups of minority students get lower scores than their mestizo peers in the language test. Afrocolombians are the worst-off group, with an achievement gap of 0.5 standard deviations (SD) with respect to mestizo students. The gap for indigenous students is of 0.4 SD and for other minorities is 0.1 SD.

I next examine how differences in family background variables, individually, are related to the language test scores.

Because of space constraints and for the sake of clarity, I only show the results for some of the categories of mother's education and family income. These are enough to show that being part of a disadvantaged family is worse for minority students than for mestizo students.

The boxplots in Figure 1 show the distribution of the test scores according to the students' minority group and family background. The boxes in such plots represent the scores that 25% to 75% of students with those characteristics get, and the horizontal lines extend up to the points where we would expect around 99% of the scores to be. The points that are shown before and after the horizontal lines represent outliers: scores that only 1% of students with

that ethnic group and family characteristic get. Minority groups are represented by different colours (the order in which they are represented agrees with the order in the legend). Language scores are measured along the horizontal axis and family background along the vertical axis.

Figure 1 shows how the distribution of test scores changes by ethnicity and mother's education. As expected, students whose mothers are better educated achieve higher scores: students whose mothers have no education get an average score of 0.5 SD below the average, while students with postgraduate mothers have an average score of 1 SD above the average. However, there are also ethnic achievement gaps within the mother's educational level. For example, within students with a postgraduate mother, indigenous students score 0.6 SD lower than their mestizo peers. In general, mestizo students whose mothers have a low educational attainment do not score as low as comparable minority students. Analogously, minority students whose mothers have a high educational attainment do not score as high as similar mestizo students.

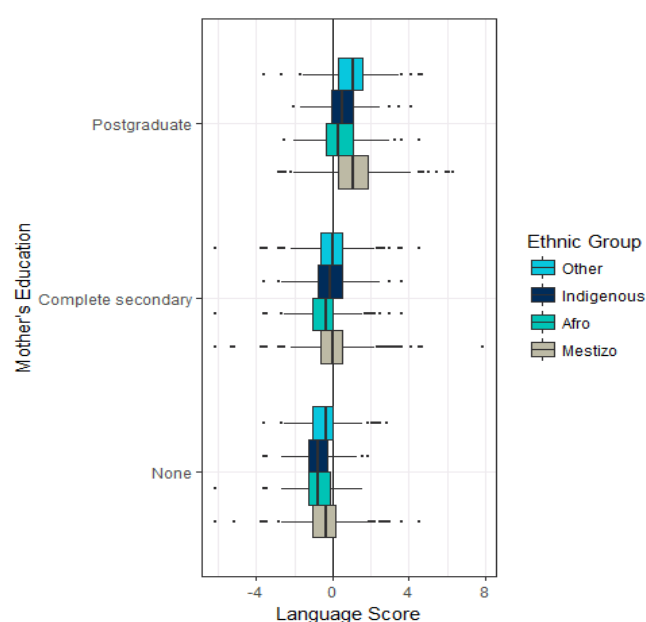


Figure 1 Distribution of language test scores by ethnic group and mother's education

Figure 2 shows the distribution of language scores according to the student's family income and ethnicity. The results here are similar to the ones above; disadvantage affects minority students in a different way than mestizo students. Here, mestizo students in the lowest income band score 0.3 SD below the average, while comparable Afrocolombians score 0.6 SD below the average, a gap of 0.3 SD between these groups. In turn, mestizo students in families in the highest income band score 1.4 SD above the

average, and Afrocolombians only 1 SD above the average, an achievement gap of 0.4 SD.

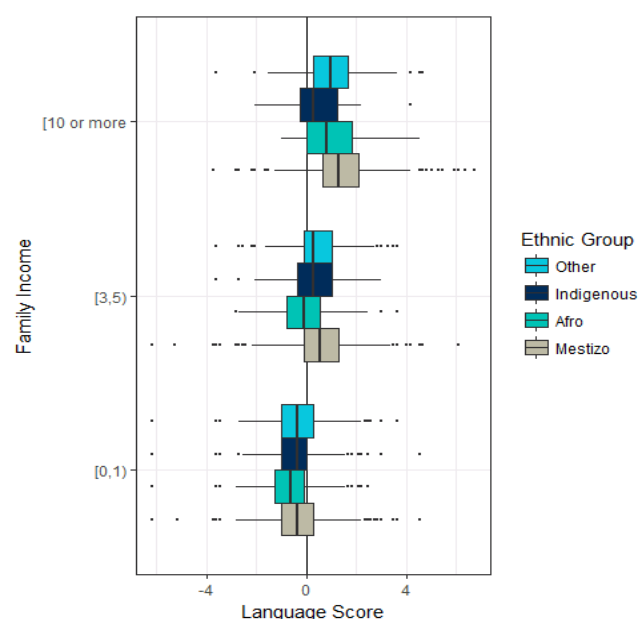


Figure 2 Distribution of language test scores by ethnic group and family income

The analysis in this section shows that there is an ethnic achievement gap, measured by language test scores. Even more, students who share one family characteristic have different scores according to their ethnicity. That is, there is an ethnic achievement gap even when we individually control for mother's education or family income. However, to test McKown's application of SET, it is necessary to compare students who share all their family background characteristics simultaneously. This is the reason to incorporate regression models into the analysis in the next section.

## Results

Table 2 presents the estimation results for the three models<sup>2</sup> in the methods section. The focus is on the ethnic achievement gaps. The magnitudes of the achievement gaps decrease when comparing students with the same family background - moving from model (1) to model (2).

This implies that more similar students have also similar test scores. Nonetheless, the achievement gaps are not statistically different from zero. This has two different implications:

Students with exactly the same family background are not actually being compared: It is possible that other family characteristics affect students' achievement and that these are unevenly distributed among ethnicities, but are not observed.

Assuming that all the family characteristics that affect student achievement and are unevenly distributed among

<sup>2</sup>Only the coefficients that are related to the ethnic achievement gap are presented. Complete regression tables are available upon request. All the models include controls for student gender and age, to avoid confounding if the distribution of these variables is different among ethnicities.



Table 2

*Estimation results for models (1), (2) and (3)*

Dependent variable: Language test score						
OLS						
	(1)		(2)		(3)	
	Estimate	s.e.	Estimate	s.e.	Estimate	s.e.
Intercept	1.25 ***	0.02	0.49 ***	0.03	0.47 ***	0.03
Afrocolombian	-0.52 ***	0.01	-0.38 ***	0.01	0.1	0.14
Indigenous	-0.39 ***	0.01	-0.17 ***	0.01	-0.05	0.17
Other	-0.09 ***	0.01	-0.04 ***	0.01	-0.01	0.09
Family Background			x		x	
Interactions					x	
Observations	455,473		455,473		455,473	
R <sup>2</sup>	0.0379		0.1863		0.1871	
Adjusted R <sup>2</sup>	0.0379		0.1862		0.1867	
F statistic	2793.3 ***		1775.4 ***		481.21 ***	

Notes:

\*\*\*: p-value &lt;0.01.

All models include controls for gender and age.

Standard errors and F statistics are estimated using the heteroskedasticity consistent matrix HC3.

ethnicities are observed, direct influences do not totally explain the achievement gap. This implies that other types of explanations need to be incorporated, one possibility being the influence of negative stereotypes, to fully explain the achievement gap.

Model (3) tests if family background affects students of different ethnicities in the same way, by including interaction terms. A Wald test (with an F-statistic of 3.1 and 141 degrees of freedom) reveals that these interaction terms are, in fact, statistically significant, which means that family characteristics affect students of different ethnicities in disproportional ways. In fact, a closer examination of the results reveals that disadvantage does not affect mestizo students as much as minority students, and that advantage does not favour minority students as much as mestizo students. This contradicts McKown's application of SET theory as an explanation for achievement gaps.

## Discussion and Conclusion

This paper tests if McKown's propositions about direct effects within the context of SET are a plausible explanation for achievement gaps in the Colombian case. I find support for the existence of direct effects, as the ethnic achievement gap narrows when we compare students with a more similar family background. This finding is consistent with the literature upon ethnic achievement gaps around the world (Buchmann & Hannum, 2001; Dworkin & Turley, 2014; McNeal Jr., 1999; Willms, 1992).

However, I do not find support for the prediction that direct effects affect student achievement in the same way, regardless of student's ethnicity. In fact, I find that minority students are more intensely hindered by disadvantage (and less benefited by advantage) than their mestizo peers. This is consistent with the McGraw, Lubienski, & Strutchens (2006) finding that ethnic gaps are different according to the students' SES and gender of 4<sup>th</sup>, 8<sup>th</sup> and 12<sup>th</sup>-grade US students in 2000. This result is also similar to the Plewis' (2011) finding that the effect of being disadvantaged is larger for 11 year-old UK white British students than for their immigrant peers in 2006.

These results do not necessarily mean that SET cannot be applied to other countries, either developed or developing, but it represents an opportunity to question the predictions of McKown's interpretation of SET. One possibility within the framework of this theory is that direct effects also interact with negative expectations about a particular ethnicity in other contexts since, as McKown recognises, this phenomenon is not exclusive of students' educational contexts. The implication could be, for example, that negative stereotypes also influence parents' ability to transform better family conditions into higher achievement. That is, signal influences may not only have a direct effect on the achievement gap, but also interact with direct influences in contexts in which students' themselves are not present, such as the labour market. Future research will need to address this hypothesis, by testing if signal influences in the contexts that affect parents interfere with

their ability to alter their children's achievement. Future research should also test the effect of negative stereotypes and their interaction with direct effects in the countries of developing countries.

Finally, the results we have presented can be extended in many ways. For example, the achievement gap can be measured using different test scores, like maths, science or social sciences. Other cohorts may be also examined to test if the results we presented here are robust over time.

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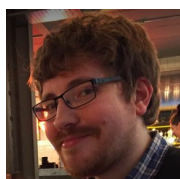
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# A Comparative Study of the 'Yes' vote for the 2011 AV Referendum and the same areas for the 2016 EU Referendum



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## Abstract

This article aims to explore the relationship between the areas that voted 'Yes' in the 2011 AV Referendum in the United Kingdom and the same areas in 2016 European Union Membership Referendum. The relationship between the status quo and desire for change will be illustrated, especially in regards to the United Kingdom. In conclusion, turnout for the EU Referendum was much higher than for the AV Referendum, while turnout in London as a whole was lower than in Scotland and other areas, raising questions about the voter turnout in London.

Keywords: Brexit, Britain, United Kingdom, electoral reform, referendum, comparative politics, European Union, voter decision.

## Introduction

There have been three UK-wide referendums. The first was the 1975 referendum on Britain remaining a member of the European Common Market, which was decided 67% to 33% to remain. The second was the Alternative Vote Referendum for elections to the House of Commons in 2011, which took the decision by 67.9% to 32.1% (almost exactly the same as the Common Market Referendum) to keep First-Past-The-Post. Finally, the third was the European Union Referendum 2016, which took the decision 52% to 48% to leave the European Union. In this article, I will focus on the 2011 AV Referendum and the 2016 European Union Referendum, although I will touch upon the 1975 referendum briefly. In particular, I shall be focussing on the areas that

both voted Yes to change the electoral system from First-Past-The-Post (hereafter FPTP) to the Alternative Vote and those same areas that voted Remain. My initial hypothesis is that the areas that voted Yes in the 2011 AV Referendum also voted Remain. To begin, this paper shall now move onto discussing the brief history of referendums in the UK and the AV Referendum.

## 1975 Common Market Referendum

Britain prior to 1975 had never held a referendum. Attlee was on record stating that in response to the suggestion the Wartime coalition should hold a referendum to extend itself that 'I could not consent to the introduction into our national life of a device so alien to all our traditions than the referendum[...].'<sup>1</sup> Furthermore, academic scholarship in the UK in the 1960s was confident that Britain would not adopt referenda, with Birch stating:

*It has occasionally been proposed that a referendum might be held...but the proposals do not appear to have been taken seriously. And there has been no support at all for the idea that the initiative and the referendum should be adopted as a permanent institution of government, as it is in Switzerland, so that the representatives could be by-passed. Views of this kind have found favour among peoples of British extraction in both Australia and the United States, but in Britain itself they have never acquired any kind of influence.<sup>2</sup>*

The prevailing mood was that referendums had no place in the United Kingdom, and academia remained sceptical, with Kavanagh stating that the 1975 referendum '...had more to do with political expediency than constitutional principle or democracy'<sup>3</sup>. This occurred when Labour promised in the October 1974 Manifesto that there would a

<sup>1</sup> Matt Cole (2006) *Democracy in Britain*. Edinburgh, Edinburgh University Press, p. 139

<sup>2</sup> A. H Birch (1964) *Representative and Responsible Government An essay on the British Constitution*. London, George Allen & Unwin Ltd, (1964) pp 227-8

<sup>3</sup> Dennis Kavanagh (1996) *British Politics: Continuities and Change*. Oxford, Oxford University Press, p.60



referendum on Common Market membership if Labour won the election<sup>4</sup>. After a much vaunted renegotiation of the UK's terms by Harold Wilson, the referendum was held on 5 June 1975, and the result was 67% to 33% to remain. There would not be another national referendum until the 2011 AV Referendum, which will now be examined.

## The Alternative Vote Referendum of 2011

In May 2011, Britain held a referendum on whether Britain should change from FPTP to the Alternative Vote, which was defeated 67.9% to 32.1% with a 41% turnout<sup>5</sup>, informing us that voting reform was not important to Britain, being so heavily defeated. This can be corroborated by looking at the official Electoral Reform Society Report, which states that as the levels of interest and knowledge of the issue were low, the turnout was accordingly low and thus the referendum was lost<sup>6</sup>. It is beneficial to study other referenda within the United Kingdom, and analysing the turnout levels for those. Leaving aside the 2016 EU Referendum, which had a 72% turnout, the London mayoralty and Assembly Referendum of 1998 had a turnout of 34.1%<sup>7</sup> (and a Yes vote of 75%), the Scottish Referendum to establish a Scottish Parliament in 1999 received a 60.4% turnout with a Yes vote of 75%<sup>8</sup>, and the Welsh Assembly Referendum of 1997 had a 50.22% turnout and a yes vote of 50.30%<sup>9</sup>. Therefore, it can be concluded that turnouts for referendums taking place in London are lower than in either Scotland or Wales. All of these referenda resulted in the governmental status quo changing, but as the turnout was low for all of these, it could be interpreted that voters are not strongly motivated by government reform.

Along these lines, the AV results demonstrate that voting reform for British elections was not seen as a priority, and

accordingly was defeated. This is further seen by examining the polling figures from ComRes from 21st to 25th April 2011, just prior to the referendum, which stated out of those were certain to vote, 40% of those would vote to change to AV, and 60% would vote to keep FPTP, demonstrating how electoral reform simply was not popular.<sup>10</sup> Of course, there are other elements that could have influenced the vote, such as weather, the media, and so on, but I shall not focus on those particular elements during this article. The unpopularity of electoral reform is supported by evidence from other nations attempting to pass electoral reform by referendum, as only three out of 20 referendums from 1991 until 2011 surpassed 70% turnout, showing the rather apathetic nature shown by the public internationally towards voting reform.<sup>11</sup>

It is perhaps not surprising that the referendum failed to change people's minds over the matter of electoral reform, as of the twenty democracy referendums held from 1991 until 2011, ten have been successful, while ten have been unsuccessful, although it must be taken into consideration five of these failures were due to failure to meet the turnout requirement.<sup>12</sup> As Britain's turnout for the AV Referendum was so low, it can be considered if a turnout requirement of around 50% was in existence, then AV would not have passed even if the vote had been in favour of it.

Indeed, if the precise figures for the various regions of the UK that voted in the AV referendum are analysed, in this case using both The Guardian's<sup>13</sup> and The Electoral Commission's<sup>14</sup> data as a source. It can be seen that in places which are traditionally seen as more educated and with more politically engaged citizens (so university towns, wealthy areas, and so on), turnout increased. Turnout for the referendum as a whole across the country was only

<sup>4</sup> The Labour Party (1974) *Britain will win with Labour: Labour Party Manifesto*, October 1974.

<sup>5</sup> BBC (2011) *Vote 2011: UK Rejects Alternative Vote*. 7 May. [Online] Located online at: <http://www.bbc.co.uk/news/uk-politics-13297573> and accessed 24th January 2017.

<sup>6</sup> Will Brett (2016) *It's Good To Talk: Doing Referendums differently after the EU Vote*. Electoral Reform Society September 2016. [Online] Located at: <https://www.electoral-reform.org.uk/sites/default/files/files/publication/Its-good-to-talk-2016-EU-Referendum-Report.pdf> and accessed April 5th 2017.

<sup>7</sup> Nick Assinder (1998) *BBC Overwhelming vote for mayor* 8 May. [Online] Located at: [http://news.bbc.co.uk/1/hi/special\\_report/1998/london\\_referendum/89327.stm](http://news.bbc.co.uk/1/hi/special_report/1998/london_referendum/89327.stm) and accessed 10th April 2017.

<sup>8</sup> BBC (1999) *Scottish Referendum Live: The Results* BBC [Online] Located at: <http://www.bbc.co.uk/news/special/politics97/devolution/scotland/live/index.shtml> and accessed 13th April 2017.

<sup>9</sup> BBC (1997) *Welsh Referendum Result: The Final Result* BBC nd. [Online] Located at: <http://www.bbc.co.uk/news/special/politics97/devolution/wales/live/index.shtml> and accessed 13th April 2017.

<sup>10</sup> ComRes (2011) *Opinion Poll: CATI Fieldwork: 21st-25th April*. [Online] Located at: [http://www.comresglobal.com/wp-content/themes/comres/poll/No2AV\\_Poll\\_Results\\_26Apr11.pdf](http://www.comresglobal.com/wp-content/themes/comres/poll/No2AV_Poll_Results_26Apr11.pdf) and accessed 16th April 2017.

<sup>11</sup> Matt Qvortup (2013) *The British Referendum on the Alternative Vote in comparative perspective in Direct Democracy: A Comparative Study of the theory and practice of government by the people*. Manchester University Press, Manchester. Pp 119

<sup>12</sup> Andrew Reynolds (2011) *Designing Democracy in a Dangerous World*, Oxford, Oxford University press, pp. 77-8.

<sup>13</sup> Simon Rogers (2011) *The Guardian AV Referendum Results*, mapped and listed. 6 May. [Online] Located at: <http://www.theguardian.com/news/datablog/2011/may/06/av-referendum-results-map#data> and accessed February 1st 2017.

<sup>14</sup> The Electoral Commission (2011) *UK-wide referendum on the Parliamentary Voting System*. Final National Results. [Online] Located at: <http://www.electoralcommission.org.uk/find-information-by-subject/elections-and-referendums/past-elections-and-referendums/referendums/2011-UK-referendum-on-the-voting-system-used-to-elect-MPs> and accessed 31st January 2017.

42%, with the highest turnout being 63% in Eastwood, which voted no.<sup>15</sup>

In regards to turnout, the majority of places with the highest turnout were located in Scotland, with 61 out of 440 voting areas<sup>16</sup> in total having a turnout of over 50% and with 42 of those being in Scotland, the rest being located in relatively wealthy areas of England like Bath,

Winchester, and Warwick. High turnout in this instance will be counted at 50% or higher, as there were only two areas with 60% turnout (Eastwood and Edinburgh Southern), so thus the decision was taken to lower the threshold of what could be considered high turnout. See Table 1 below:

The lack of turnout for the referendum is evident<sup>17</sup> as only two voting districts managed to break 60% turnout,

District Name	Turnout	District Name	Turnout
Eastwood	63.02	Mole Valley	52.79
Edinburgh Southern	62.24	Linlithgow	52.71
Edinburgh Western	59.61	Dunfermline	52.59
Na h-Eileanan an Iar	59.27	Clydesdale	52.5
Stirling	58.21	Aberdeen South & Kincardine North	52.37
Edinburgh Pentlands	57.83	Aberdeenshire East	52.28
East Lothian	56.98	Cumbernauld & Kilsyth	52.14
Strathkelvin & Bearsden	56.74	Derbyshire Dales	52
Perthshire North	56.58	Cunninghame North	51.98
Skye, Lochaber & Badenoch	56.09	Caithness, Sutherland & Ross	51.77
Renfrewshire North & West	55.91	St Albans	51.63
Northern Ireland	55.79	Waverley	51.58
Clackmannanshire & Dunblane	55.57	Rushcliffe	51.57
Edinburgh Eastern	55.54	Cardiff North	51.55
Edinburgh Central	55.38	Chiltern	51.5
Midlothian South, Tweeddale & Lauderdale	55.34	Almond Valley	51.44
Perthshire South & Kinross-shire	54.12	Carmarthen East & Dinefwr	51.31
Ayr	54.02	Ceredigion	51.31
Argyll & Bute	53.87	East Kilbride	51.16
Winchester	53.85	Midlothian North & Musselburgh	51.08
Edinburgh Northern & Leith	53.74	South Hams	51.02
Renfrewshire South	53.48	West Devon	50.83
Dumfriesshire	53.46	Fife North East	50.82
Clydebank & Milngavie	53.34	Moray	50.82
Ettrick, Roxburgh & Berwickshire	53.27	Falkirk West	50.71
Shetland Islands	53.21	Cotswold	50.39
Dumbarton	53.17	West Somerset	50.37
West Dorset	53.06	Kilmarnock & Irvine Valley	50.19
Aberdeenshire West	53.04	South Lakeland	50.12
Galloway & Dumfries West	52.96	Warwick	50.09
Brecon & Radnorshire	52.94	Bath & North East Somerset	50.08
Inverness & Nairn	52.86	Angus South	50.01

Table 1: Summarised data illustrating voting areas of above 50% in the UK Alternative Vote Referendum, May 2011. For full data, see appendix.<sup>11</sup>

<sup>15</sup> Ibid

<sup>16</sup> Usual Parliamentary Constituencies were not used for the AV Referendum.

with every other district falling below this level of turnout. Rather, the focus shall be on those areas that voted Yes, of which there are only 10. Only one of these locations had a

turnout of above 50%, that being Edinburgh Central, with the other nine being under 50% turnout. See Table 2:

Analysing this table, there are a varied mix of places that voted Yes, including Edinburgh Central, Glasgow, Oxford,

Name	Maj	Maj%	Yes vote	Yes %	No vote	No %	Electorate	Turnout	Turnout %
Hackney	10,905	21.37	30,969	60.68	20,064	39.32	149,606	51,033	34.11
Haringey	7,087	13.24	30,310	56.62	23,223	43.38	150,294	53,533	35.62
Islington	6,702	13.85	27,553	56.92	20,851	43.08	135,675	48,404	35.68
Lambeth	5,954	9.38	34,712	54.69	28,758	45.31	191,929	63,470	33.07
Glasgow Kelvin	4,208	17.56	14,083	58.78	9,875	41.22	59,167	23,958	40.49
Southwark	3,391	5.47	32,695	52.73	29,304	47.27	180,695	61,999	34.31
Cambridge	3,382	8.64	21,253	54.32	17,871	45.68	81,260	39,124	48.15
Oxford	3,298	8.23	21,693	54.11	18,395	45.89	102,836	40,088	38.98
Camden	1,430	2.8	26,275	51.4	24,845	48.6	137,117	51,120	37.28
Edinburgh Cent.	769	2.73	14,486	51.36	13,717	48.64	50,924	28,203	55.38

Table 2: Data illustrating voting areas that voted 'Yes' in the UK Alternative Vote Referendum, May 2011.<sup>11</sup>

Cambridge, Islington and Hackney.<sup>18</sup> This ability of the Yes vote to only win in ten locations demonstrates how the referendum for changing the voting system failed to capture the mood of the country and appeal to the average voter: as Downs reminds us, this is how referendums are won.<sup>19</sup>

This is compared to the EU Campaign, which captured the mood of the country far more, as is reflected by the turnout percentage of 72.2%.<sup>20</sup> The fact that Yes only won in Oxford, Cambridge, London and the two main cities in Scotland raises questions in exactly how the locations are similar and why they voted Yes and is worthy of further study. Furthermore, the fact that turnout is so similar in London, ranging from 33% to 38.98%, is deserving of further study. Additionally, the majority for the Yes vote was often very low, with only Hackney, Glasgow Kelvin, Islington and Haringey providing a 10% majority over No. Even in the Yes areas, it was a close-call. There seems to be no correlation as to the level of turnout (from a very general view) and the Yes majority, because the area with the highest turnout, Edinburgh Central, had the lowest Yes majority percentage, while the area with the second lowest

overall turnout had the biggest Yes majority percentage. With the low turnout and defeat of electoral reform, it gives credence to the idea that reformation of the voting system is an issue not highly regarded by the British people. This was not to be for the referendum on the European Union however, as Britain voted in large numbers on an issue which divided the nation almost 50-50, with 52% opting to leave and 48% opting to Remain. This shall now be discussed in more detail.

## Analysis of the 2016 European Union Referendum

The UK and Gibraltar held a referendum on the matter of leaving the European Union on 23 June 2016, as had been promised by the Conservative 2015 Manifesto,<sup>21</sup> and Britain decided to leave the EU. Contrary to the emotions running high in the campaign and since, British politics and the British people has not always been preoccupied with Europe. This can be seen from the Ipsos Mori Issue Index<sup>22</sup> which states that Europe did not reach 10% of the biggest issues facing Britain until 2016, often being around 3% until then<sup>23</sup>, three years after David Cameron stated if the Conservatives won in 2015, then Britain would hold an EU

<sup>17</sup> Which is inverse to what happened for the EU Referendum.

<sup>18</sup> It must be said that the Scottish districts represented here are the Scottish Parliament seats, while the English seats represented are the local government districts for England.

<sup>19</sup> A. Downs (1957) *An Economic Theory of Democracy*, New York, Harper Collins

<sup>20</sup> T. Helm (2016). *The Guardian* EU Referendum: Youth Turnout Almost Twice as High as First

<sup>21</sup> The Conservative Party (2015) *Conservative Party Manifesto 2015*. Located at: <https://www.conservatives.com/manifesto> and accessed 8th May 2017.

<sup>22</sup> A series of polls run by Ipsos Mori since 1974 which measures what the most important political issues are to the British people. and accessed 5th February 2017.

Referendum before the end of 2017.<sup>24</sup> It must go without saying that according to the same data, immigration saw a similar shift in perspective as an issue facing Britain, from a low of around 4% in 1994 to 56% in December 2015<sup>23</sup>, which resonated well with the Leave campaign and Leave voters, who often based their decision to leave on migration,<sup>25</sup> and as Hobolt demonstrates, control of immigration was one of the main arguments put forward by those who voted Leave, demonstrating how immigration was key to the EU Referendum and to the Leave vote.<sup>26</sup>

Moving onto the comparison of the Yes areas to the same areas in the EU campaign, some more interesting points come to light. As stated before, the areas that voted Yes are in urban cities typically populated by either Labour or SNP voters, which can be seen from Table 3, as well as other relevant information:

From this comparison of the same voting districts (or as close as can be achieved), correlations come to light between the AV and EU votes in these districts. Table 3 tells us some interesting elements; first of all, the majority of

these areas were either controlled by Labour both in Parliament and in the local council or were dominated by the SNP in both 2011 and 2016. Edinburgh Central, or the closest approximation to it, is represented to the Scottish Parliament by Ruth Davidson, the Scottish Conservative leader, disproving my hypothesis that the ten areas represented must be Labour. Secondly, the London districts again have very similar turnout, ranging from 65.40% in Camden to 70.50% in Haringey, and they are all lower than the nationwide turnout of 72.2%, and is also less than the turnout for the other districts highlighted, apart from Glasgow, which has the lowest turnout for the EU vote than anywhere else examined. Despite this, the Remain majority was higher in London than all of the other places analysed, apart from Edinburgh Central on 56% (which had the highest turnout for the AV Referendum of the ten districts studied) and Cambridge on 47.60% majority for Remain, which is larger than Southwark's Remain majority of 45.60%. Also, it doesn't seem to matter who the MP is; Jeremy Corbyn's Parliamentary seat is in Islington, and his

Constituency name	Party in 2011	Party in 2016	Turnout 2011 for AV	Turnout 2016 for EU	Yes maj %	Remain maj %
Edinburgh Central <sup>27</sup>	Labour/SNP	Conservative (Scottish)	55.38%	78.00%	2.73%	56%
Cambridge	Liberal Democrat	Labour	48.15%	72.20%	8.64%	47.60%
Glasgow Kelvin	Labour/SNP	SNP	40.49%	56.20%	17.56%	33.20%
Oxford	Labour controlled Council	Labour controlled council	38.98%	72.30%	8.23%	40.60%
Camden	Labour	Labour	37.28%	65.40%	2.80%	49.80%
Islington	Labour	Labour	35.68%	70.30%	13.85%	50.40%
Haringey	Labour/Lib Dem	Labour	35.62%	70.50%	13.24%	51.20%
Southwark	Labour/Lib Dem	Labour	34.31%	66.10%	5.47%	45.60%
Hackney	Labour	Labour	34.11%	65.10%	21.37%	57%
Lambeth	Labour	Labour	33.07%	67.30%	9.38%	57.20%

Table 3: Data comparing the areas that voted Yes in the Alternative Vote Referendum of May 2011 and the same areas in the European Union Referendum 2016. <sup>28 29</sup>

<sup>23</sup> Ipsos Mori Issue Index (2016) Located in Blinder, Scott and Allen, William (2016) *The Migration Observatory: University of Oxford Briefing: UK Public Attitude towards Immigration: Overall Attitudes and Level of Concern*. [Online] Located at: <http://www.migrationobservatory.ox.ac.uk/resources/briefings/uk-public-opinion-toward-immigration-overall-attitudes-and-level-of-concern/>

<sup>24</sup> David Cameron (2013) *The Guardian* David Cameron's EU Speech – full text. 23 January [Online] Located at: <https://www.theguardian.com/politics/2013/jan/23/david-cameron-eu-speech-referendum> and accessed 4th February 2017.

<sup>25</sup> Tobias Buck (2016) *Financial Times* Immigration resonates on the streets for Brexit Campaign. June 8. [Online] Located at: <https://www.ft.com/content/e7bfc9b4-2bcb-11e6-bf8d-26294ad519fc> and accessed 9th May 2017.

<sup>26</sup> Sara B Hobolt (2016) The Brexit vote: a divided nation, a divided continent *Journal of European Public Policy* Volume 23, Issue 9, pp.1259 – 1277. [Online] Located at: <http://www.tandfonline.com/doi/full/10.1080/13501763.2016.1225785> and accessed 11th May 2017.

<sup>27</sup> Please see the appendix for detailed notes about the constituencies in this table.

<sup>28</sup> Simon Rogers (2011) *The Guardian* AV Referendum Results, mapped and listed. 6 May. [Online] Located at: <http://www.theguardian.com/news/datablog/2011/may/06/av-referendum-results-map#data> and accessed January 31st 2017.

<sup>29</sup> The Electoral Commission (2016) EU Referendum Results. [Online] Located at: <http://www.electoralcommission.org.uk/find-information-by-subject/elections-and-referendums/upcoming-elections-and-referendums/eu-referendum/electorate-and-count-information> and accessed 31st January 2017.



perceived reticence to be fully involved in the Remain campaign (with the most famous declaration of this being his statement about being 7 out of 10 committed to staying in the European Union<sup>30</sup>) delivered a remarkably high Remain vote. In contrast to this, Kate Hoey, one of the biggest Labour MPs backing the Leave campaign, is one of the MPs for Lambeth, which delivered one of the highest Remain majorities in the country and one of the highest on the ten districts studied. From this analysis, it can be concluded from this list that the MP does not seem to matter too much for the outcome of the referendum vote. Furthermore, analysing Cambridge and Oxford, two cities with educated populations, it is evident why the turnout and Remain vote were so high. If Goodwin and Heath's work is examined, then it can be clearly seen that the younger the population and the more educated the population, the lower the likelihood is to vote Leave.<sup>31</sup> Combined with Larcinese's work on turnout which states that the better informed the voter, the more likely they are to vote, the turnout in these areas becomes evident.<sup>32</sup>

### Comparing the two referenda: Lambeth as a case study

If a direct comparison of Lambeth between the two votes is taken, then it can be seen that turnout more than doubled, and the Remain majority is far more than the Yes majority was with the AV referendum. Clearly, the voters of Lambeth were far more enthused by the EU Referendum, and there is no correlation between low turnout in the selected London districts during the AV referendum and high turnout in the EU Referendum. Indeed, if Figure 1 is examined, this is clear.

We can see from Figure 1 that there seemingly is no correlation between the highest percentage Yes majority and the highest Remain majority percentage; as stated, Hackney has the highest Yes majority percentage, but not the highest Remain majority, although it certainly is close. Correspondingly, Lambeth, which has the third lowest Yes majority percentage, has the highest Remain majority.

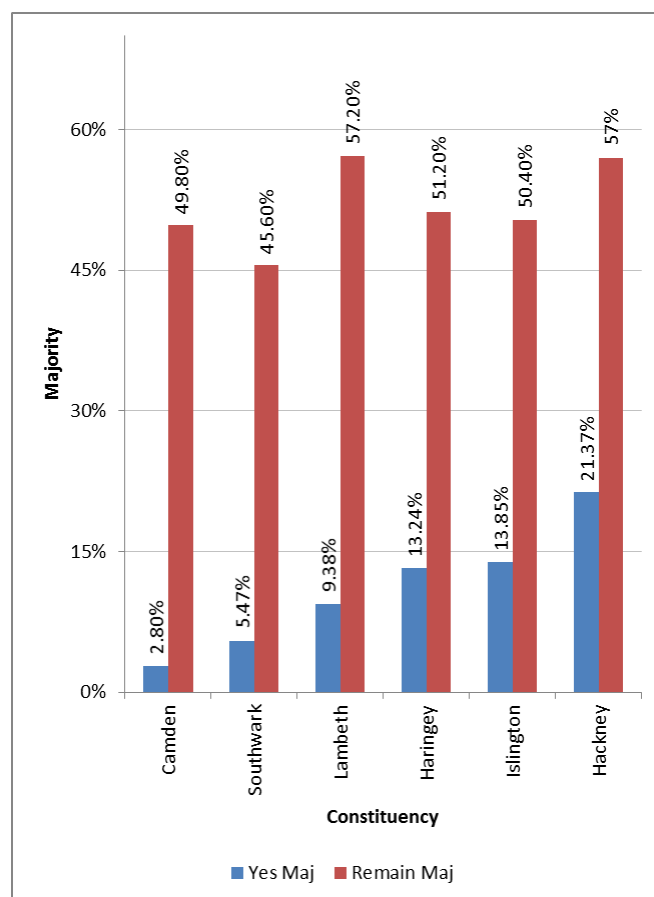


Figure 1: Comparison between the Yes % Majority and the Remain Majority in the selected London districts.<sup>33</sup>

### Conclusion

In conclusion, turnout for the EU referendum was much higher than for the AV Referendum, with turnout in the ten areas that voted Yes being twice as high for the EU vote. My original hypothesis that all ten areas that voted Yes would also vote Remain was correct, and the other hypothesis that all of the areas would be Labour voting areas was mostly correct, even if this was not correct for the country as a whole. The fact that one area was Conservative in the EU vote did not seem to matter for the overall result, despite the fact that a majority of Conservative voters wanted to leave the European Union, as Edinburgh Central had a large majority of over 55% in Remaining in the European Union. It also can be seen that the areas of London analysed (and indeed, if the area of London as a whole is studied) both have similar turnout for both the AV and EU referenda, and

<sup>30</sup> BBC (2016) *Corbyn: I'm 7 out of 10 on the EU*. 16 June [Online] Located at: <http://www.bbc.co.uk/news/uk-politics-eu-referendum-36506163> and accessed 8th February 2017.

<sup>31</sup> M. J Goodwin and O. Heath (2016), The 2016 Referendum, Brexit and the Left Behind: An Aggregate-level Analysis of the Result. *The Political Quarterly*, 87: 323–332.

<sup>32</sup> Valentino Larcinese (2007) Does political knowledge increase turnout? Evidence from the 1997 British General Election *Public Choice*, Vol, 131, No. 3-4, (Jun. 2007) p. 387

<sup>33</sup> Simon Rogers (2011) *The Guardian* AV Referendum Results, mapped and listed. 6 May. [Online] Located at: <http://www.theguardian.com/news/datablog/2011/may/06/av-referendum-results-map#data> and accessed January 31st 2017

<sup>34</sup> The Electoral Commission (2016) EU Referendum Results. [Online] Located at: <http://www.electoralcommission.org.uk/find-information-by-subject/elections-and-referendums/upcoming-elections-and-referendums/eu-referendum/electorate-and-count-information> and accessed 31st January 2017

they are as a whole on lower turnout than the entire country and most of the other areas analysed, which brings in further questions as to why turnout in London is lower, and whether higher turnout in London in the EU vote may have swung the referendum the other way. The study of London seems to be crucial to any analysis of both the AV and EU Referendums, as they share so many similarities between the two votes. To summarise, London and Scotland's similarity is noteworthy, and their relationship in voting referenda is deserving of further study, both qualitative and quantitative. The reasons for depressed turnout in London compared to the rest of the country may hold the key for some of the reasons why the EU Referendum went the way it did, and may illustrate why the selected districts in London voted Yes for AV; works such as John Curtice's *Brexit: Behind the Referendum*<sup>35</sup> sheds light on this regarding the European Referendum, and *The Politics of Austerity: Modeling British Attitudes*<sup>36</sup> towards Public Spending Cuts will be excellent for future analysis regarding the AV vote. There is more room for the analysis of the overall demographics and their interest in both politics and the referendum, and to see the reasons for both the low turnout and the lack of engagement with the referendum; studies such as Moore and Ramsay's work on media coverage in the EU Referendum campaign will be essential for this.<sup>37</sup>

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<sup>35</sup> John Curtice (2016) Brexit: Behind the referendum *Political Insight* Volume 7, Issue 2, pp.4-7

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<sup>37</sup> Martin Moore and Gordon Ramsay (2017) *UK Media Coverage of the 2016 EU Referendum Campaign* [Online] Located at: <http://www.kcl.ac.uk/sspp/policy-institute/CMCP/UK-media-coverage-of-the-2016-EU-Referendum-campaign.pdf> and accessed 8th May 2017.

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### Notes concerning Table 3

- Edinburgh Central: Scottish council districts were used as the voting areas for the EU referendum, so am using the areas of Edinburgh North and South to approximate Edinburgh Central. Please also note that on the same day as the AV Referendum, Scottish Parliament elections also took place, and thus seat changes took place from the Labour Party to the SNP.
- Cambridge: Labour controlled council from 2014; prior to that, there were two years of No Overall Control, as the Lib Dems lost control of the council in 2012.
- Glasgow Kelvin: Same case as Edinburgh; have centralised Glasgow Kelvin into Glasgow for purposes of comparison
- Oxford: Oxford is not a single constituency, so I have used the council area. Otherwise, the city is split between Labour and Conservatives in Parliament.
- Camden: Labour have controlled the council since 2010.
- Islington: Jeremy Corbyn's seat. Local government controlled by Labour since 2010.
- Haringey: Labour control the local government, and the two parliamentary constituencies were split between Lib Dem and Labour, but both became Labour in 2015.
- Southwark: Southwark is three Parliamentary constituencies, and was split between Lib Dems and Labour until 2015, when they all were Labour. Local govt has been Labour since 2010.

Voting Area	Turnout %
Eastwood	63.02
Edinburgh Southern	62.24
Edinburgh Western	59.61
Na h-Eileanan an Iar	59.27
Stirling	58.21
Edinburgh Pentlands	57.83
East Lothian	56.98
Strathkelvin & Bearsden	56.74
Perthshire North	56.58
Skye, Lochaber & Badenoch	56.09
Renfrewshire North & West	55.91

- Hackney: Local govt Labour controlled since 2001.
- Lambeth: Local govt Labour controlled since 2006. Kate Hoey, one of the main Leave Labour MPs, is one of the MPs for Lambeth.

## Appendix

Voting Area	Turnout %
Northern Ireland	55.79
Clackmannanshire & Dunblane	55.57
Edinburgh Eastern	55.54
Edinburgh Central	55.38
Midlothian South, Tweeddale & Lauderdale	55.34
Perthshire South & Kinross-shire	54.12
Ayr	54.02
Argyll & Bute	53.87
Winchester	53.85
Edinburgh Northern & Leith	53.74
Renfrewshire South	53.48
Dumfriesshire	53.46
Clydebank & Milngavie	53.34
Ettrick, Roxburgh & Berwickshire	53.27
Shetland Islands	53.21
Dumbarton	53.17
West Dorset	53.06
Aberdeenshire West	53.04
Galloway & Dumfries West	52.96
Brecon & Radnorshire	52.94
Inverness & Nairn	52.86
Mole Valley	52.79
Linlithgow	52.71
Dunfermline	52.59
Clydesdale	52.5
Aberdeen South & Kincardine North	52.37

Voting Area	Turnout %
Aberdeenshire East	52.28
Cumbernauld & Kilsyth	52.14
Derbyshire Dales	52
Cunninghame North	51.98
Caithness, Sutherland & Ross	51.77
St Albans	51.63
Waverley	51.58
Rushcliffe	51.57
Cardiff North	51.55
Chiltern	51.5
Almond Valley	51.44
Carmarthen East & Dinefwr	51.31
Ceredigion	51.31
East Kilbride	51.16
Midlothian North & Musselburgh	51.08
South Hams	51.02
West Devon	50.83
Fife North East	50.82
Moray	50.82
Falkirk West	50.71
Cotswold	50.39
West Somerset	50.37
Kilmarnock & Irvine Valley	50.19
South Lakeland	50.12
Warwick	50.09
Bath & North East Somerset	50.08
Angus South	50.01

Table 4: Full data illustrating voting areas of above 50% in the UK Alternative Vote Referendum, May 2011. Source: Rogers, Simon (2011) *The Guardian AV Referendum Results, mapped and listed*. 6 May. [Online] Located at: <http://www.theguardian.com/news/datablog/2011/may/06/av-referendum-results-map#data> and accessed January 26th 2017.



# Safety crime in Britain: Beyond fines and towards alternative punishments



**Angus Ryan**

*Throughout my Bachelor's Criminology degree and having just graduated from a Master's in Policy Research at the University of Bristol, safety crime has been a dominant theme during my studies. I am particularly interested in researching safety crime regulation and punishment, and the application of novel sanctions which target the individual. I aim to enrol onto the PhD Social Policy degree at the University of Bristol so that I may continue my research and contribute to academia.*

## Abstract

Violent crime is a major area of social policy and public opinion. A vast amount of attention has been paid to measuring this phenomenon, along with explanations for why it occurs and how it can be regulated and controlled. Despite this, much crime manages to evade the notice of the criminal justice system and the general public. Prominent examples are crimes committed by the powerful, such as environmental crime or occupational health and safety offences. In Britain alone, it has been speculated that up to 50,000 deaths can be attributed to health and safety offences each year (Tombs 2016, p.3), although with the exception of high profile cases, this crime wave fails to attract any political, public, or even academic attention. This secondary analysis of existing literature addresses the obscure topic of health and safety regulation and punishment in Britain. By summarising and disseminating the research findings of these two topics, this article argues that the British 'economic model' of the criminal justice system proves inadequate in punishing corporate offenders, and in order to revitalise corporate sanctions, the courts should look towards alternative punishments like community sentence orders for the effective control of safety crime.

## Introduction

Since the turn of the century, several studies have brought attention to acts which although they may not be classed as serious crimes, nevertheless cause a serious amount of harm (see Davies, Francis & Wyatt 2014; Hillyard, Pantazis & Tombs 2004). Under the category of zemiology – the field of study that developed from criminology which studies social harms which are not usually considered criminal acts – safety crime represents one such topic, that being: employer acts or omissions which violate health and safety law that either do, or have

the potential to cause death or injury as a result of work-related activities. Safety crime is responsible for at least 1,700 occupational fatalities each year (Tombs & Whyte 2007, p.62), and it is speculated that it causes up to 50,000 annual deaths due to work-related diseases (Tombs 2016, p.3).

Despite this, safety crime is relatively invisible to the political and public arena because of its obscure nature. In light of government spending cuts, it can be argued that this obscurity has allowed austerity cuts to target safety crime regulation, thereby exacerbating an already dire issue and pushing it even further to the periphery. The most pressing concern regarding safety crime is how these offences are punished, as contemporary sanctions fail to enforce any degree of punishment theory, and the efficacy of the overwhelmingly used fine is questionable when it usually amounts to less than a local fine for littering.

This discourse analysis of existing literature focuses upon the issue of safety crime punishment and asks which alternative punishments are the most promising for tackling safety crime. To do this, it first discusses the background of safety crime; such as how obscure and underreported these crimes are, and how this impacts on their regulation and punishment. It then takes a greater look at the regulatory model surrounding these crimes, and highlights the fundamental criticisms of current regulation. Lastly, it expands on these criticisms by discussing the issue of safety crime punishment and put forwards an alternative sanction which is popular within the literature.

## Safety crime background

Safety crimes have revelled in near invisible obscurity since Sutherland introduced the concept of white-collar crime in 1939. In what Box (1983, p.13) describes as a 'collective ignorance', the true magnitude of these crimes is unknown. Despite this, the first and currently only book dedicated to this issue, Safety Crime (Tombs & Whyte

2007), suggests that there are at least eight times as many occupational fatalities than what is officially reported. It is well known that official injury data is significantly under-reported, a fact pointed out by the Robens Committee itself – the same committee which largely enacted the Health and Safety at Work Act 1974 (now on HSWA, see HSE 2017) – and various other academics: whereas Stevens (1992, cited in Tombs & Whyte 2007, p.39) estimates that during the late 1980's official data recorded roughly 10% of self-employed and 40% of total employee injuries, Tombs & Whyte (2007, p.39) indicate that contemporary employee injury data is closer to 25%. The reason for this, as far as can be reasonably discerned, is that employers consistently fail in adhering to the Reporting of Injuries, Diseases and Dangerous Occurrences Regulation 2013 (now on RIDDOR, see HSE 2017a). For instance, there has always been a large discrepancy regarding major injury data between employer self-report surveys under the Health and Safety Executive (HSE), and employee self-report surveys under the Labour Force Survey since 2000/01, which as of 2015/16, stands at 72,702 and 621,000 respectively (HSE 2016).

Moreover, the practices of the HSE exclude certain fatality categories from its 'headline figure'; whereas this headline figure stands at 144 in 2015/16, by including the two largest 'un-official' categories – which nevertheless breach section 2 and 3 of the HSWA – this figure stands at 1,247 (HSE 2016a), that being over eight times as high as the official figure and over twice as high as homicides in England and Wales, which stand at 518 in 2015 (ONS 2015). Examples of these categories include: deaths relating to the supply and use of flammable gas, deaths of members of the public, and the most numerically significant and least excusable are work-related road traffic deaths (see regulation 14 of RIDDOR). These categories equate to a significant amount of fatal injuries, as a wide range of sources indicate that just over 1,000 deaths occur annually from work-related road incidents (RoSPA 2002, p.1); suggesting that 'Britain's roads are the country's most dangerous workplace' (Trades Union Congress 2005).

Apart from demonstrating the importance of this issue, these figures prompt the question as to why these crimes evoke so little attention when they kill more than twice as many people in Britain as 'traditional' crime. The answer for this can be ascribed to their obscurity, at both an ontological and structural level. Safety crime has traditionally been regulated by administrative agencies, thereby causing them to be regarded as *mala prohibita* (wrong due to prohibition) rather than *mala in se* (wrong in itself) harms, which in other words, means that they fail to appear as 'real' or 'conventional' crime by the public and the criminal justice system (Snell & Tombs 2011). This lack of solemnity translates to a structural level, as this differentiation from traditional crime is evident considering safety crime falls under HSE authority under the Department for Work and Pensions (DWP), and despite constituting criminal law under the Corporate

Manslaughter and Corporate Homicide Act 2007 (see HSE 2017b) and the HSWA, they are rarely treated as criminal incidents like their violent crime counterparts under the police and the prestigious Home Office. This level of insouciance is demonstrated by the amount of recognition each department generates: as of 2001 there has been almost double the amount of Secretaries of State for the DWP in comparison to Home Secretaries, which in 2003 led the Institution of Occupational Safety and Health to highlight this issue of ministerial continuity; stating that this game of 'pass the safety parcel ... begs the question of how seriously the government takes safety' (Jolliffe 2003, p.2, cited in Tombs & Whyte 2007, p.67). Similarly, the total size of the HSE workforce constitutes merely 1.5% of the police service, standing at 3,400 and 223,541 respectively (HSE 2011; Home Office 2015). Hillyard (2006) has also pointed out that from 1997 to 2007 over 50 pieces of crime and immigration legislation passed through parliament, yet only one of these impinged on safety crime. Despite some of the above being relatively outdated, it certainly demonstrates the difference the government accords street crime and safety crime. Unfortunately, this differentiation is generally exaggerated by the public, which often see it as '... if the police deal with it, it is a crime; if other agencies deal with it, it is not a crime' (Levi 1995, p.181).

To make matters worse, an overwhelming amount of health and safety reviews<sup>1</sup> have advocated 'deregulation' and 'reducing burdens on business'; that being the removal of constraints on industry in order to enhance competitiveness in the international market (INDECS 1992). These reforms follow the rhetoric of developing efficient 'risk-based' regulation (that being the reduction of regulation in order to prioritise the most hazardous workplaces for inspection), although these reviews fail to supply any empirical evidence for some of their claims, such as why or how inspections should be prioritised – even the designated dangerous workplaces constitute so many areas as to be largely indistinctive, (see the HSE 2016b) – and certain rhetoric – such as 'we have the lowest number of non-fatal and the second lowest number of fatal accidents at work in Europe' (HM Government 2015) – contrasts with the academic evidence regarding the magnitude of safety crime (Tombs & Whyte 2007). So far, instead of a prioritisation and re-direction of regulation, there seems to be an overall reduction across all industries (Tombs 2016; 2016a).

This lack of solemnity and general insouciance on the part of the government, and general attitude of sufferance by the public, has seen safety crime and its harms go relatively unnoticed. Therefore, considering austerity spending cuts are generally aimed at the welfare state save education and healthcare, it can be argued that safety crime obscurity has allowed official reforms to target this area for welfare cuts as there has been little resistance. The evidence for this lies in the state's greater dependence on the 'economic model' of the judicial system (Becker 1974;

Gobert & Punch 2003), which can be seen by the increase in fines since the new Sentencing Council (2016) guidelines and the reduction, in both resources and inspections, of the HSE (Tombs & Whyte 2007, p.148; Tombs 2016a, p.6). These reforms are likely to exacerbate the already pressing concern of safety crime harms, and in light of contrasting academic evidence, safety crime policy currently represents one of the largest gaps between evidence and policy.

## Regulation

From 1970 to 1972 the Robens Committee reviewed occupational health and safety in Britain, concluding that the most fundamental flaw was that there was too much law; as this had the undesirable effect of creating apathy in workers, as they were 'heavily conditioned to think of safety ... as ... a matter of detailed rules imposed by external agencies' (Robens 1972, p.7). Subsequently, Robens' findings went on to support a philosophy of self-regulation based on a tripartite of HSE, employee, and employer cooperation. This meant that employers would regulate themselves with the state simply acting in an advisory position, but Robens (1972, p.80) was clear that 'flagrant offences call for the quick and effective application of the law', and that enforcement must be 'rigorous where necessary'. Accordingly, trade unions would play a fundamental role in ensuring appropriate safety standards, whereas regulators would only force compliance as a last resort.

However, if trade unions or regulatory agencies were to fail in fulfilling their role, self-regulation would inevitably give way to deregulation. Such has been the argument of self-regulation critics, in that they reject the notion of a unity of interests between employees and employers, and urge the requirement of some sort of policing agency (Nichols & Armstrong 1973; Woolf 1973). Indeed, Robens' self-regulatory philosophy undervalued the influence of employers within the so-called regulatory tripartite, and it failed to provide credible enforcement techniques in response to non-compliance. Dalton (2000) notes how the so-called regulatory tripartite is dominated by employer interests because it operates by a system of consensus, whereby any no votes prevent future policy. In essence, if employers do not agree with new health and safety law it will either be unsuccessful or be so watered-down as to be ineffective. This claim is supported by Tombs & Whyte (2013) as they argue that the overall reduction of regulation is indistinctive from deregulation, culminating in 'Better Regulation': better for whom? (Tombs 2016a). In this article, they suggest that the terminology of 'burdens on business' and 'risk-based regulation' simply means business friendly regulation, and that recent regulatory changes may mark the beginning of the end of the state's commitment to, and ability to deliver, social protection.

This deregulatory trend is supported by the dominant ideology of safety crime regulation – the consensus

approach. This approach is based on the tenets of Robens' self-regulatory philosophy, in that it emphasises persuasion, education, and compromise between regulator and regulated. In doing so, it prioritises employee and employer cooperation over state intervention, but with the threat of state sanctions as a last resort. A huge amount of support backs this approach, namely academics from the Oxford School of Socio-legal Studies, such as Robert Baldwin (1995, 1997), Julia Black (1997), Keith Hawkins (1984, 1997, 2002), Bridget Hutter (1988, 1997, 2001), and the most notable, John Braithwaite (1982, 2000). The consensus approach is largely based on the shortcomings of state regulation (Clarke 2000, Gobert & Punch 2003), which according to Ayres & Braithwaite (1992), inevitably leads to a culture of resistance resulting in a cat-and-mouse game between regulatory agencies and companies seeking statutory loopholes. The rationale behind consensus theory is that state regulatory agencies should act as consultants rather than a police force (Pearce & Tombs 1990), as external regulators will never have the resources to effectively enforce regulatory law, whereas internal regulators will have social and technical advantages over these agencies (Braithwaite & Fisse 1987). Thus, 'given the scarcity of regulatory resources, a more discriminating approach to regulatory enforcement is needed' (Hawkins 1990, p.461).

However, there are various fundamental critiques which can be applied to consensus regulation. Primarily, consensus regulation relies upon credible and effective sanctions – whether used first or as a last resort – in response to non-compliance. This is problematic, as the following section argues that contemporary punishments are anything but credible or effective. Second, considering the lack of empirical evidence for consensus theory claims, it is often argued that the desirability of self-regulation is based on the undesirable effects of state enforcement (Dawson et al. 1998; Smith & Tombs 1995). In other words, if novel and effective punishments were to replace the somewhat alienating effects of corporate fines (Bardach & Kagan 1982), this may fix the pitfalls of self-regulation. Lastly, the assumption that corporations are morally good and responsible citizens wanting to self-regulate contrasts with the bulk of sociological and criminology theory suggesting otherwise (i.e. Marxist criminology, see Greenberg 1993; Slapper & Tombs 1999), demonstrated by the fact that social regulation is often adopted after corporations commit safety crime. The above creates a very strong argument for creating sanctions which work. Regardless whether these sanctions are issued first or last, it certainly seemed unequivocal that there is a reliance on corporate punishment.

## Punishment

Historically, serious crime has been punished with imprisonment or corporal punishment. Considering that the latter has been abolished, and the other rarely applies

to the corporate criminal, fines have become the default sanction for corporate crime. Most safety crimes in Britain – including the most serious offences – will, if the prosecution is successful, result in a fine. For the year 2015/16, fines accounted for 84% of total convictions (HSE 2016c), whereby due to the ‘corporate veil’ effect<sup>2</sup>, most of these were levied against organisations, with only 2% being targeted against employees and 3% against directors (Tombs & Whyte 2015, cited in Tombs 2016, p.2). However, on closer inspection, fines incur various fundamental criticisms, in which three have been listed. First, fines are generally not very severe, especially when considered next to a company’s annual turnover. For instance, in Britain the largest fine to date has been levied against Transco Plc in August 2005, amounting to £15 million. However, this sum barely dented their 2004 turnover, totalling to less than 2% of the year’s after-tax profit. This equates to £40 for someone earning £25,000 a year, which in relative terms, is less than a local fine for littering. Second, fines fail to represent the tenets of punishment theory, such as deterrence, retribution, incapacitation, and rehabilitation. For example, fines are too often set as a derisory level to engender any degree of deterrence, which then questions whether retribution is sufficiently achieved. Furthermore, only rarely do fines achieve incapacitation since so few threaten the sustainability of businesses, and fines fail to incorporate any rehabilitative ideals whatsoever. Lastly, because fines overwhelmingly target organisations due to the corporate veil effect, the costs of the fine can be distributed as the company sees fit – often targeting innocent customers or workers. It is generally the case that fines are offset against particular budget heading (which may even result in cuts to maintenance costs) or passed on to clients in the form of price rises.

There have been several suggestions from the literature which incorporate the above ideals, such as license revocations, corporate probation, and community sentence orders (CSOs). Out of these, it is CSOs which demonstrate the most potential. Individual CSOs would entail convicted executives dedicating a large amount of their time to a charity or public organisation chosen by the courts. Considering corporate offenders are likely to be university graduates, they would take on more experienced work such as researching better health and safety practices, teaching safety classes, or assisting in the functionality of the organisation. In one US case for example, a corporate offender was required to help design a rehabilitation programme for ex-offenders (Justia 2017). CSOs have the potential to utilise each tenet of punishment theory, thus surpassing the contemporary fine. Deterrence is achieved because CSOs pierce the corporate veil and act as tangible punishments. Retribution is achieved because offenders give back to society in the form of community service whilst sacrificing their personal privileges (such as a well-paid job). Incapacitation is achieved because convicted

perpetrators are removed from the conditions which give rise to the crime, which may also remove the criminogenic variable from the corporation itself. Lastly, rehabilitation can be achieved as offenders are effectively on probation with their designated charity and must demonstrate good health and safety practice as this is a condition of their punishment. Overall, there is a strong case for implementing CSOs, not least because of a lack of any convincing counterarguments, such as the fact that it is frowned upon that ‘un-convicted’ executives may have to carry out punishments for the corporation (Gruner 1993).

## Conclusion

This article has argued that there is an extremely appealing case for rethinking corporate punishments which work. It began by highlighting the magnitude of safety crime, and how despite this enormous amount of harm, obscurity nevertheless besets this topic. It then speculated that this obscurity has allowed a large amount of government reviews to champion deregulation, no matter the concomitant rhetoric surrounding ‘cutting red tape’ and promoting efficient ‘risk based’ regulation. By discussing the primary regulatory ideology, it then argued how the greatest pitfall of consensus regulation is a lack of emphasis on credible sanctions, which was demonstrated in the following section. To conclude, the literature discloses no barriers to the implementation of alternative punishments which work, with CSOs being the brightest out of these. Not only will effective sanctions adequately punish crimes which cause more harm than ‘traditional’ crime, but it is likely that getting punishments which work will have several ripple effects such as actively deterring against crimes which currently run rampant without any conscientious regulator.

## Footnotes

<sup>1</sup> E.g. HCS (2004); BRTF (2005); Hampton (2005); Young (2010); DWP (2011); Löfstedt (2011).

<sup>2</sup> The corporate veil is an effect of corporate personhood and limited liability. In law, the combination of limited liability and the corporation as a legal subject has resulted in a legal entity separate from human persons which acts as a structure of irresponsibility. It is this corporate ‘personhood’ which shields directors, managers, and employees from criminal responsibility.

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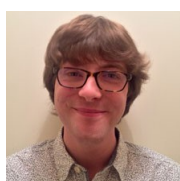


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# Blogs

## What's wrong with p-values and why Bayes Factors might be the solution?



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Statistics in science usually rely on the concept of Null Hypothesis Significant Testing (NHST). In these tests, a null hypothesis (the position of there being no relationship between two measured phenomena) is statistically measured; a rejection of the null hypothesis implies that there are grounds for believing that there is indeed a relationship. The probability of the results of a study occurring if the null hypothesis is true is represented by the p-value. Convention dictates that a p-value of  $< .05$  (a 5% or less chance that the results could occur if the null hypothesis is true) is the threshold level for saying if a result is 'significant' (Halsey, Curran-Everett, Vowler, & Drummond, 2015), that is the effect is so improbable it can be seen as 'real' (Krzywinski & Altman, 2013). For example, imagine a hypothetical clinical trial looking at the effectiveness of a vaccine against a placebo. The alternative hypothesis would be that the vaccine is effective in treating a deadly disease, and the null hypothesis would be that the vaccine would show no improvement over a placebo. Say the results suggested that those who received the vaccine showed a marked improvement over those who received a placebo, and when running a statistical test the scientist found the difference had a p-value of .03 – that is, there was a 3% chance that the same results could have occurred through random chance.

At this stage the scientist might be very happy as they have found a p-value under the threshold of  $p < .05$ , and might also claim that they have found a cure for this deadly disease. However, p-values do not give the probability of the null hypothesis being false (in this case the vaccine being ineffective), but merely state the probability of obtaining the data by chance. The scientist, and convention, might argue that a small p-value represents strong evidence that the vaccine is effective yet this conclusion cannot be made with NHST. All that can be claimed is that there is only a 3% likelihood that the data occurred through chance.

In any subsequent publication, the scientist may want to comment on the effectiveness of their vaccine above that of the null hypothesis, yet NHST does not provide this evidence (Dienes, 2011). How would the scientist be able to substantiate this claim?

One approach would be to use a Bayes Factor. This is a numerical expression of the likelihood of obtaining the data from one hypothesis relative to another (Wetzels et al., 2011). Whereas a p-value looks at the chance of the null hypothesis being correct, a Bayes Factor looks at both hypotheses.

For example, imagine the same scientist ran a Bayes test on the data from the clinical trial and found a Bayes factor of 7 – this would mean that the alternative hypothesis is 7 times more likely than the null hypothesis. Conversely anything below 1 would be evidence in favour of the null hypothesis. Having run the experiment, the scientist can legitimately provide evidence to support a claim of the effectiveness of the vaccine over that of the placebo.

One of the stumbling blocks for the widespread use of Bayes is calculating the statistics. While p-values can be calculated easily through traditional statistical packages such as SPSS or excel, neither of these offers the ability to calculate Bayes. While Bayes can be calculated through the statistical package R, for those unfamiliar with the programme the coding for the Bayes calculation can be daunting. Yet, recent user friendly packages, such as JASP (<https://jasp-stats.org/>), or free online Bayes calculators, like Zoltan Dienes' ([http://www.lifesci.sussex.ac.uk/home/Zoltan\\_Dienes/inference/bayes\\_factor.swf](http://www.lifesci.sussex.ac.uk/home/Zoltan_Dienes/inference/bayes_factor.swf)), have made the task of calculating a Bayes factor quick and easy (Wagenmakers, Morey, & Lee, 2016).

Overall, Bayes factors provide the evidence in support of the claims which as scientists we wish to make. Given that they are now easy to calculate it is recommended that in

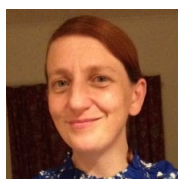
our own research we move away from reporting p-values and instead report Bayes factors.

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## The rise of social media and internet news coverage. Life inside an echo-chamber... or a force for change?



**Helen Foster-Collins**

*Helen previously studied psychological research methods at MSc level, and is now in her first year of an ESRC-funded PhD in Education, looking at the inter-professional learning of 1st-year junior doctors and newly qualified teachers.*

Social media and internet-use are often quoted as sources of social decline in modern society, with increased 'screen-time' claimed to underlie increased depression rates, loneliness and impaired social skills <sup>1</sup>. Whereas, supporters of social media argue that such platforms open up borders and break down social and cultural boundaries.

But what about the effects of social media and internet news on political decisions? Many 'Remainers' and anti-Trump commentators fear that reasoned debate has been circumnavigated, as the availability of multiple alternative news sources traps us within echo-chambers of our own making. Inside such 'filter bubbles', we only encounter those political views which fit our own, suffering from confirmation bias and cultural tribalism.

### Cognitive dissonance

In an ideal world, such public forums might act as 'communicative spaces', in which information and ideas were freely circulated and discussed <sup>2</sup>. However, claims that internet news leads to political polarisation has support from research, with most people preferring sources which they already agree with, thus segregating them from divergent opinion <sup>3</sup>.

Psychologically, these phenomena have been accounted for by 'cognitive dissonance', the discomfort we feel when exposed to contradictory information, which we seek to reduce by creating homogenous social networks of like-minded individuals. In these groups, we are exposed to selective information <sup>4</sup>. Worryingly, such self-confirmatory information sources are also associated with more extremist viewpoints <sup>5</sup>.

### Like attracts 'Like'

Technologically, these divides might also be explained by the inherent features of social applications which, due to real-time distribution and exchange of information and

their 'viral' nature, can reach huge networks of people <sup>6</sup>. This provides social media platforms with enormous potential: to distribute either challenging, provocative content inviting debate, or to reflect the political preferences of the user back at them.

The personalisation algorithms in Facebook tailor the content of feeds based upon past 'Likes'. This, combined with closed networks of friends and acquaintances, ensures that our news and political content can become increasingly polarised <sup>7</sup>. Twitter has the potential to connect even larger networks of users, with posts visible to all, freely followable content, and the use of hashtags all ensuring that posts are shared and retweeted widely. However, analyses of political tweets again show that Twitter users predominantly 'retweet' or 'mention' posts confirming their own political views <sup>8</sup>. In addition, a rising distrust of news media amongst Americans <sup>9</sup> and the British <sup>10</sup>, combined with a diversity of new media outlets, has meant that a growing number of people are avoiding mainstream news sources altogether.

### The generation gap

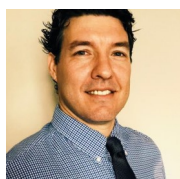
An interesting finding, however, is how different generations are using the internet. For example, 'millennials' are more likely than 'baby-boomers' to use Facebook as a main news source, but also visit more posts which contradict their own beliefs <sup>11</sup>. As being part of politically diverse social communities increases awareness and tolerance of opposing viewpoints <sup>12</sup>, this suggests that social media use could actually reduce the echo-chamber effect, if used to access heterogeneous political views. Additionally, internet use can cause accidental exposure to conflicting opinions <sup>13</sup>, particularly in broader, non-political forums <sup>14</sup>. Given that most voters supporting both the 'Leave' and Trump campaigns belonged to older generations <sup>15 16</sup>, then perhaps the ways in which the social media and internet news influence political beliefs will change over time. We can only wait and see.

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# Unprecedented



**David Knott**

*David is in the third year of the Ed.D. program in TESOL at the University of Exeter based in Dubai, and his research interests revolve around the cultural issues connected to the global spread of English as a foreign language and of teaching English to speakers of other languages.*

Seeing the call for opinion pieces on the state of the world entitled ‘Crisis? What Crisis?’ conjured images of bigotry, controversy, and tragedy. I am a 40-year-old citizen of the United States living in the Middle East, and the current state of affairs certainly feels unprecedented. But is it? For understanding, I find it illustrative to look back over ‘the American Century’, at my country’s politics and world events through just the last three generations of my family to get a sense of how uniquely turbulent our modern world is.

My grandfather was born in Virginia in 1921, just as the White House was embroiled in a scandal that saw members of the president’s cabinet actually arrested, tried, and imprisoned for bribery. During his earliest years, my grandfather lived through the Roaring Twenties, a time of rampant optimism and positivity that was quickly forgotten at the onset of the Great Depression, shattering the pastoral world he knew. As a teenager, he was fortunate to find work on a dairy farm for ten dollars a month. A decade on, as families continued to struggle, the world was plunged into a second ‘war to end all wars’, and my grandfather, barely a man, was shipped across an ocean to fight the Axis powers, truly an existential threat to civilization. While the US homeland was spared the ravages of this war, much of the globe experienced unfathomable horrors, the effects of which extended far beyond the war’s end.

Shortly after the war, my father was born, also in Virginia, and for years hence, politicians and others in the United States battled over the segregationist way of life there and in other southern states while protestors were pelted with firehoses and attacked by dogs. He can remember when, in the 1950s, some state schools closed for months rather than integrate black and white pupils. At the same time, his own school was conducting “duck and cover” drills to prepare for nuclear bombardment, small consolation with two global superpowers grappling

on the verge of worldwide annihilation. In the 1960s, after being drafted into the army, my father was sent across another ocean as those powers engaged in proxy wars abroad. Back home, anti-war protestors were shot at and even killed by authorities, while a future president vilified those protesting, campaigning on resentment, racism, and law and order.

I was born in the 1970s, just after the vice-president and subsequently the president of the United States had resigned over charges of corruption and abuse of power respectively. That decade renewed American interest in the Middle East, along with a novel awareness of terrorism. Still, the first president that I remember admitted that his administration had delivered to the country’s newest geopolitical foe in that region several caches of missiles and other weapons as part of secret deal. In the early 1990s, our long-standing global adversary collapsed, massively upsetting the established world order. Not long after, I first voted in a presidential election: an election won by a man with multiple allegations of sexual escapades, who later publicly lied about an extramarital affair with a staff member half his age. The 20 years since have seen waves of war, terrorism, xenophobia, and more.

Thus, by looking back, we can see that while our present situation is jarring, the major events of the last century were similarly unforeseen and easily as threatening. Through all those crises, however, humankind has continued to steer an erratic yet positive course, growing more just, more egalitarian, and more peaceful. As academics, I feel that it is our duty to pursue that belief, even in the face of so much animosity or militancy, whereby we might ensure that our own grandchildren can benefit from our generation’s progress when they themselves inherit the world.

# Meet the researcher



**Michelle Ryan**

**Professor of Social and Organisational Psychology/ Dean of Postgraduate Research and Director of the University of Exeter Doctoral College**

Michelle Ryan is involved in a number of research projects. In 2014, she undertook a British Academy Mid-Career Fellowship to examine the role of identity in explaining perceptions of work-life balance. With Alex Haslam, she has uncovered the phenomenon of the *glass cliff*, whereby women (and members of other minority groups) are more likely to be placed in leadership positions which are risky or precarious. Research into the glass cliff was short listed for the *Times Higher Education Supplement* Research Project of the Year in 2005 and was

## **Q. What inspired you to go into research?**

It was a bit of a long and circuitous route for me to get into academia. I was the first in my family to go to University, and I didn't really know what University entailed, let alone that you could be an academic and do research. I was lucky enough to (eventually) enrol myself at my local university which just happened to be a world-leading university - The Australian National University. In the Psychology department there they had an excellent group of social identity theorists, including John Turner, Penny Oakes, Craig McGarty and Barbara David - Alex Haslam was a post-doc at the time. I remember thinking it was a coincidence that my lecturer had the same name as the person that wrote the book we were studying - until of course I worked out that they of course had written the books! Together, this group of researchers inspired me to go into research myself, by showing me that social psychological research could be socially valuable, politically motivated, and that working as part of a brilliant team was the best way to make a difference in academia.

## **Q. Who inspires you, in the research field and beyond?**

I have lots of different role models (which indeed echoes that research that Thekla Morgenroth and I do on the effectiveness of role models). Alex Haslam was the best mentor that anyone could ask for, and most importantly, he was an active sponsor for me early in my career - and still is. He inspires me all the time - both through his exceptional research, but also because he really is one of the nicest people you can meet. Alex really demonstrates

that you don't have to be cut-throat or competitive to succeed in academia - you just have to love what you do and support those around you. There are also some strong female academics who continue to inspire me - through their brilliant work and because they show that it is possible to have an academic career and be a mother at the same time - Alice Eagly, Madeline Heilman, and Jolanda Jetten come to mind.

## **Q. What is the best, and worst aspect of working in the research field?**

For me, the best part of working in research is the collaborative aspect of research. Being able to work as part of a team, being able to brainstorm and bounce around ideas, and being able to mentor and support junior researchers is definitely the best part of my job. The worst part is probably the delayed gratification of it all - the fact that it can be years and years and years between conceptualising a study and seeing it published (if indeed it ever gets published), makes it hard to keep up motivation and momentum.

## **Q. Can researchers really have it all? - Is it possible to achieve a good work/ life balance in the research field? And, what is your top bit of advice for those who feel that they are not getting it right?**

I think the important thing to remember is that there is no objective measure of what is right or wrong when it comes to work-life balance. Each researcher needs to find the balance that works for them. For some that might mean working in the evenings when their brain is on form or when the house is quiet, for others it might be about putting strict limits of when they work. I think research is a creative enterprise, and thus it is not necessarily correlated with the amount of time spent in front of your computer. For me, getting out and walking the dog, or reading on the beach, or spending time climbing tress with my son, allows my research ideas to percolate. Having time away from the research also helps me maintain my energy and enthusiasm for the work, which pays off in the long run.

## **Q. What was the hardest challenge you yourself have had to overcome as a researcher?**

I think the biggest challenge for me was to learn to have confidence in my own ideas and not to second-guess myself. It makes me much more efficient and keeps up my energy. This, of course, is not the same thing as not listening to critical feedback or failing to revise thinking ideas - it's the balance between the two.



**Q. What do you think the biggest challenge is right now regarding achieving equality in the workplace?**

I think that workplace gender inequality is incredibly subtle and is bound up in our norms and stereotypes around gender and workplace roles. What is most pernicious at the moment is the rhetoric around choice. There is a lot of discussion around the fact that women and men make very different career choices, and that this somehow means that there is no longer discrimination. I believe that context, identity, and expectations place great constraints on women's and men's choices - leading to the stagnation of social change in this area and us continuing to reify the status quo.

**Q. We hear that you used to suffer from stage fright, which is a common issue for lots of people - how did you overcome this and what is your advice for anyone who would like to publicly present their research but suffers from nerves?**

I used to be terrified of public speaking and indeed I almost dropped out of University because I had to give a presentation in class. I was determined to overcome this, so I enrolled in a course at the local public radio station to learn to be a radio presenter - thinking that this might cure me of my stage fright. It did, eventually - I presented on the radio for about 5 years - twice a week - but for the first 2 years I was physically sick before every show! Now I speak on a weekly basis - and I still feel nervous before every talk. But I think that's OK - it's a productive nervousness, that motivates me to prepare well, and it reminds me that speaking in public is a responsibility I shouldn't take lightly.

**Q. How much of your own identity is bound up with your job as a researcher?**

A good question. I think it is a big part of who I am. On forms, when I fill in my occupation, I always put psychologist, rather than academic or professor - the area of research that I do is a big part of my identity. I tend to focus on areas of research that are personally relevant to me - gender in leadership (as a female leader) and work-life balance (as a single mum of an 8 year old). I think sometimes that's why it is hard to get the work-life balance right - because it is not really clear where work ends and life begins - they are intertwined - I can't just turn my ideas off at 5pm, just like I can't turn life off at 9am. So perhaps it's a happy medium having them so mixed together.